EXPLORING THE EFFECTS OF MOOD STATES, CULTURAL BACKGROUND, AND THE CONGRUITY BETWEEN AD APPEAL AND PRODUCT TYPE ON CONSUMERS' ATTITUDES AND PURCHASING INTENTIONS

BY

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ABSTRACT

This paper examines the interactive effects of mood, culture and message appeal (i.e., congruity/incongruity between ad appeals and product types). Two online experiments were conducted with 438 participants from both U.S. and China. All participants (i.e., Americans and Chinese) were randomly assigned to either a positive or negative mood condition and were asked to read either a greeting card ad (Study 1) or a household printer ad (Study 2) that contained either experiential or functional verbal claims. The results showed that people from different cultural backgrounds and in different mood states had different ad preferences. There were main effects of culture as well as main effects of ad congruity on persuasion outcomes. However, the three-way interaction of mood, culture and message appeals on persuasion outcomes was not significant. Theoretical and practical implications are discussed in regard to how American and Chinese consumers in different mood states process different types of ad message appeal.

Keywords: Mood, culture, product type, message appeal, incongruity

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CHAPTER 1: INTRODUCTION

The role of mood continues to be an important topic in both advertising practice and advertising scholarly research. Brands such as Snickers have recently begun to target their ads by mood, as people who are happy, bored or stressed are more likely to snack (Kirkpatrick 2016). Marketers of these brands can identify consumers' mood states by mining information captured by Google and Facebook, then they (marketers) push ads that correspond to these mood states to online users (Shotton 2016). Spotify has started to push ads to music listeners based on their mood and their behavior online. For example, if users were listening to songs within the "happy mood" category, they would be receiving the "Open Happiness" campaign played by Coca-Cola (Peterson 2015). Furthermore, McStay (2015) predicted that empathic media, which applies an automated technology to understand people's moods and emotional states could help advertisers to target their advertising more effectively. This trend of mood-based ad targeting and tailoring bases itself on sizable empirical studies of mood effects on individuals' cognitive thinking style and ad evaluations (Braun-LaTour, Puccinelli, and Mast 2007; Sar, Nan, and Myers 2010; Storbeck and Clore 2005). Previous studies found that people who are in a positive mood evaluate ads more positively (Lee and Sternthal 1999; Isen 2001).

In addition to the effects of mood on thinking styles and ad evaluations, the cross-cultural impact on individuals' thinking style also has been discussed in the past two decades (Peng and Nisbett 1999; Choi, Koo, and Choi 2008). More specifically, previous studies have shown that cultural background could influence the nature of people's cognitive processes, which can affect people's attention to ads and their ad evaluations (Aaker and Sengupta 2000; Nisbett et al. 2001; Uskul, Sherman, and Fitzgibbon 2009). Despite growing interest in how mood and culture influence how people cognitively process ad information, most researchers studied these two

factors separately and very few studies have examined the interaction effects of these two factors in the advertising context. Thus, understanding how mood and culture interact to influence one's evaluations of ads with (in)congruent message appeals could provide a deeper understanding of how people's information processing style that was triggered by mood or predisposed by culture influence persuasion outcomes (attitude and purchase intention). This study expects that mood and culture will have some additive effects of the adoption of two types of thinking styles, namely holistic vs. analytic thinking styles to influence the processing of ads with different message appeals, attitudes and purchasing intentions.

Other than consumers' temporary mood state and cultural predisposition, the "match" between the advertisement and product can also influence consumers' ad evaluation. All advertisements can be roughly divided into ads using functional message appeals and ads using experiential message appeals (Drolet, Williams, and Lau-Gesk 2007; Johar and Sirgy 1991). Functional message appeal usually pairs with utilitarian products and experiential message appeal usually pairs with hedonic products since it is intuitive as well as effective to emphasize the most important features of a certain product in an ad (Meyers-Levy and Tybout 1989). However, one may ask should advertisers always use the 'matched' message appeal for a certain type of product? Past studies have shown conflicting findings of the effects of (in)congruity between product type and message appeal on consumers' ad evaluations. Some studies have found that the congruity between product type and message appeal led to positive ad evaluations. For example, Drolet and Aaker (2002) found that consumers generally preferred ad appeal that was congruent with the attitude object type (i.e., experiential product with experiential appeal). Consumers tend to prefer rational ads for utilitarian products and affective ads for hedonic products. However, other studies have found that the incongruity between product types and

message appeals was better, because the incongruity triggered greater cognitive elaboration that helped consumers to pay more attention to the ad and process it in more details. This in turn led them to evaluate the ad more positively (e.g., Heckler and Childers 1992; Michon, Chebat, and Turley 2005; Meyers-Levy and Tybout 1989).

However, there is no empirical research that examines the potential impact of culture and mood on cognitive thinking styles and their effects on consumers' evaluation of advertisements with either congruent or incongruent message appeal. Thus, the main objective of the current study is to examine the effects of mood, culture and (in)congruity between product type and message appeal on ad attitudes and purchase intentions. Understanding how these variables interact to influence persuasion has important implications. Theoretically, the study expands our knowledge on the effects of mood and culture on types of ad message appeal evaluation, cognitive resource allocation theory, and cross-cultural consumer psychology by examining how people from different cultures and in different mood states process ad information differently. Practically, this study is informative for advertising practitioners who want to target consumers with different mood states and cultural backgrounds for ads with different types of message appeal.

CHAPTER 2: LITERATURE REVIEW

2.1. Incongruity between Product Type and Message Appeal

Advertising message appeals can be divided into two different types: experiential message appeals and functional message appeals. An experiential message is defined as a message that emphasizes on the promise of experiences that consumers can expect from a product (Samuelsen and Olsen 2010). This message appeal usually pairs with hedonic products, which are consumed for acquiring sensory experience associated with pleasure, fantasy and fun (Johar and Sirgy 1991). The functional message appeal is defined as a message that informs consumers of one or more key benefits that are perceived to be highly functional or important to target consumers (Johar and Sirgy 1991). This message appeal is often used to promote utilitarian products, which are purchased for their practical uses and highly functional key benefits to target consumers (Drolet, Williams, and Lau-Gesk 2007).

Many products in the market are not solely hedonic or utilitarian, they can be framed as both experiential and functional in ads. However, there are cases when a certain product needs to be framed in a certain way. First, when the context is specific or when the target audience is narrowed down, advertisers usually tend to frame an advertisement to be either more experiential or more functional. For example, yogurt can be framed as either a hedonic product (e.g., get a taste of the difference; enjoy the moment that belongs to you) or utilitarian product (e.g., with vitamin D, low fat, healthy choice) in the ad. But when targeting a specific group of people (e.g., those who would like to keep fit and obtain more protein), the functional aspect of yogurt will be emphasized and the functional appeal becomes the main message appeal (e.g., No fat. 18g of Protein). Second, when a type of product is highly hedonic (e.g., travel package) or highly utilitarian (e.g., battery), the message appeals that match the product type will be frequently used,

whereas the message appeals that do not match the product type will be rarely used due to the risk of failing to convey the major selling points of the product or leaving consumers the impression of *incongruity between the message appeal and the product type*.

Some researchers have found that the congruent message appeals could lead to more positive outcomes compared to incongruent message appeals (Drolet et al. 2007; Geuens, De Pelsmacker, and Faseur 2011; Drolet and Aaker 2002). However, other scholars argued that when the incongruity between the advertisement and product is encountered, the novelty of the ad increases arousal, and greater cognitive elaboration to resolve the incongruity that might lead to more positive evaluations and attitudes (Mandler 1982; Meyers-Levy and Tybout 1989). For example, Heckler and Childers (1992) reported that incongruent information sometimes could yield a higher level of memorability in the complex marketing communications. They posited that incongruity was a multidimensional concept, which included *relevancy* and *expectancy*. Relevant material directly relates to the meaning of the theme and it can reflect how the information contained in the material clearly contributes to the theme or the primarily message being communicated. Expectant material refers to the information that falls into some readers' predetermined pattern of structure evoked by the theme. The pattern usually derives from preexisting knowledge structures associated with the theme (Heckler and Childers 1992). Their experimental results indicate that the incongruent information that is relevant to the theme but is unexpected by the readers led to the best memory-testing result. Moreover, Cheong and Kim (2011) found that the incongruity between ad claim and product type led to more favorable brand evaluations than using congruent claims for food products. The results were consistent with the schema congruity hypothesis: the degree of congruity between an ad and the activated schemas affects a number of processes related to consumers' evaluation of a brand (Stayman, Alden, and

Smith 1992). Previous empirical research indicates that an incongruent piece of information tends to increase the rewarding and satisfying processing of the information toward resolving the incongruity. However, when people are unable to resolve the incongruity, they are less likely to have a positive attitude toward the incongruent ad. Therefore, the processing of an incongruent ad message sometimes can lead to a favorable evaluation of the ad and the product, but sometimes it cannot (Mandler 1982). To the author's knowledge, there was no existing literature that mainly examined the potential moderating effects of culture and mood on the impact of (in)congruent ad message appeal. Examining these variables could provide a better understanding of how individuals' predispositions such as cultural background and temporarily situational factors such as mood states interact to influence the effects of ad congruity on outcome variables. Thus, the current study aims to examine how mood states and cultural background interact with (in)congruent message appeal to influence attitudes toward the ad and purchase intention. In the following section, the interaction effects of mood and incongruity message appeal will be discussed.

2.2. Moderating Role of Mood State on the Impact of (In)congruent Message Appeal on Persuasion

Myriad research in psychology suggests that affect and cognition are interdependent and the theory of affect-as-information has been widely studied (Baumann and Kuhl 2005; Clore, Gasper, and Garvin 2001). According to this theory, a positive mood indicates that the current situation is safe and benign. The benign situation signals people in a positive mood that they do not need to pay close attention to the details of the incoming information, in turn, this allows people in a positive mood to adopt a relational information processing or holistic processing

style[1]. Elaboration that fosters the processing of information associated with the categories to which an object might belong is referred to as *relational processing* (Einstein and McDaniel 1990; Hunt and Einstein 1981; Meyers-Levy 1991). In other words, relational processing focuses on generating or grouping single pieces of information into discrete larger units according to the generality of information. For example, when processing an ad message, a relational processor might focus on comparison, categorization and product category thoughts, and advertising category thoughts. In contrast, the theory of affect-as-information also suggests that a negative mood alerts people that the current situation is problematic and that people need to pay close attention to the details of the external information (Schwarz and Clore 1983; Sar, Nan, and Myers 2010). As a result, in order to effectively cope with a problematic situation, people in a negative mood tend to adopt an item-specific information processing style/Analytic processing[2] (Lee and Sternthal 1999; Storbeck and Clore 2005). Elaboration that pertains to information that an object is specifically depicted as possessing is referred to as item-specific processing (Einstein and McDaniel 1990; Hunt and Einstein 1981; Meyers-Levy 1991). In other words, item-specific processing focuses on the distinctiveness of a specific item or specific attributes of an object (Hunt and Seta 1984). For example, when processing an ad message appeal, an item-specific processor might focus on the product attributes such as price, quality, function and the ad attributes such as design, layout, quality, color, etc.

In addition to the theory of affect-as-information, the cognitive resource allocation theory also provides a systematic explanation of the effects of mood states on cognitive tasks. The

[1] Relational information processing style and holistic processing have been used interchangeably. They both refer to a type of cognitive thinking that focuses on combination, correlation, categorization, and connection of the 'object' and the 'field'.

[2] Item-specific information processing style and analytic processing have also been used interchangeably. They both refer a cognitive thinking style that focuses on attributes of the 'object', and detachment of an 'object' from the 'field'.

cognitive resource allocation theory assumes that there is a limited, momentary pool of capacity (attentional resources), which can be allocated to any given task. First, mood states can affect the amount of attentional capacity that can be allocated to a given cognitive task and the encoding of information usually requires some allocation of cognitive capacity or effort (Ellis and Ashbrook 1989). Several experiments conducted by Ellis, Thomas and Rodriguez (1984) provide empirical evidence on the negative impact of negative mood states on elaborative encoding, semantic processing, and cognitive effort. The negative mood states itself occupies a major amount of cognitive resource, which leads to less available cognitive resource for the target task.

Information encoding that result from relational and item-specific processing can serve different processing functions (Meyers-Levy 1991). Therefore, these types of elaboration elicited by different mood states can differentially affect consumers' responses to various measures of ad effectiveness, such as attitudes toward the ad and purchasing intentions. The effect of negative mood has been supported by myriad past studies. For example, Schwarz and Clore (1983) found that due to the motivational self-serving bias, people are more motivated to seek relief from the negative mood. Similarly, Tice et al. (2001) reported that the effects of emotional distress on self-regulation may be strategic: people may abandon or violate their normal self-regulatory efforts to give priority to affect regulation over other forms of self-regulation. Thus, distress (a negative mood) makes the quest for pleasure (e.g., eat fattening food, immediate gratification and procrastination) take precedence over impulse control. This result indicates that negative mood causes people to seek for different behaviors to get rid of their negative feelings. Gorn et al. (2001) found that people in a negative mood would narrow the *focus of attention*, and consequently adopt an item-specific processing style. In addition to that, Braun-LaTour et al. (2007) reported that when facing information incongruity, participants in the negative mood

condition processed the incongruent information significantly slower than those who were in the positive mood condition in an information-overload environment, because people in a negative mood would allocate less cognitive resource to the task. Braun-LaTour and his colleagues (2007) used the method of the Implicit Association Tests (IAT) to manipulate the information incongruity, in which they ask participants to pair Ben & Jerry's with positive adjectives and Marlboro with negative adjectives (i.e., the congruent trials) or to pair Ben & Jerry's with negative adjectives and Marlboro with positive adjectives (i.e., the incongruent trials). Ellis et al. (1984)'s study also recognized that negative mood states would reduce the amount of capacity available for processing the criterion task. These studies indicate that in general, people in a negative mood might prefer congruent information over incongruent information because they usually can identify the incongruity within the given task more quickly than people in a positive mood but they have lower motivation and capacity to thoroughly process and resolve it.

In contrast, positive mood allows people to focus on relations between pieces of information and classify them into discrete categories (Bless et al. 1996; Clore, Gasper, and Garvin 2001; Lee and Sternthal 1999; Schwarz and Clore 1983). For instance, Braun-LaTour et al. (2007) found that consumers in a positive mood were faster than people in a negative mood to categorize information especially in the complex conditions of the classic Stroop task, and they rated the advertised brands more favorably than people in a negative mood. Similarly, Storbeck and Clore (2005) found that a positive mood state induced greater relational elaboration, which was manifested by more clustering of brands by category, better category recall, and better brand name recall. The study conducted by Lee and Sternthal (1999) also found similar results: participants were elicited either positive or neutral mood and after that, they were shown a list of 25 brands names and experienced a distracter task. Finally, they were asked to finish a surprise

memory test. Lee and Sternthal found that respondents in a positive mood fostered greater relational elaboration, which was manifested by more clustering of brands by category, more categories recalled, and better brand name recall. Isen (2001) summarized that as long as the situation is either interesting or important to the participant, positive mood facilitates systematic, careful, cognitive processing and increases creativity and cognitive flexibility. In summary, these findings indicate that people in a positive mood tend to process information more relationally, by drawing relations between attributes of the ads and ad appeals. Thus, they are more likely to tolerate ad appeals that are incongruent with the product. In contrast, people in a negative mood tend to process information more item-specifically. Specifically, they tend to focus on the specific elements in the ad information, such as ad copy, a product feature or an attribute of an ad separately. Thus, they are more likely to notice whether the ad appeals are incongruent with the product. This could lead them to lesser tolerance to incongruent information. This in turn influences their evaluation of ad and purchase intention. Therefore, it is expected that:

H1: There will be an interaction between mood and ad congruity, such that (a) people in a negative mood will have more positive persuasion outcomes (i.e., attitudes toward the ad and purchasing intentions) when they read an ad using congruent message appeal as compared to an ad using incongruent message appeal; (b) people in a positive mood will have similar persuasion outcomes when they read either an ad using congruent message appeal or an ad using incongruent message appeal.

2.3. Moderating Role of Cultural Background on the Impact of (In)congruent Message Appeal on Persuasion

Mood states are not the only variables that can influence consumer's information processing. Previous research in social psychology has shown that cultural factors could also influence people's cognitive thinking styles (Aaker and Sengupta 2000; Bagozzi, Wong, and Yi 1999; Nisbett et al. 2001; Peng and Nisbett 1999). Nisbett and his colleagues (2001) argue that social organization could affect cognitive processes. These authors extensively reviewed past literature and they summarized that the cognitive process was not so universal as people previously assumed, and it is dependent of the particular character of thought that distinguishes one human group from another. More specifically, they found that social differences between cultures were viewed as promoting certain cognitive processes more than others. Individuals in Western societies have beliefs that the world is discrete and discontinuous in general and that an object's behavior can be predicted using rules and properties (Aaker and Sengupta 2000). This belief in turn influences Westerners to be more analytic thinkers. An *analytic thinking style* "involves a detachment of the object from its context, a tendency to focus on attributes of the object to assign to categories, and a preference for using rules about the categories to explain and predict the object's behavior" (Nisbett et al. 2001, p. 293). For example, when processing an ad, Westerners tend to focus on an attribute of an ad or a product. In contrast, individuals in East Asian societies pay attention to all the elements of a scene, the context and the relationships between items. They have beliefs that the world is interdependent (Bagozzi, Wong, and Yi 1999). As a result, Eastern cultures promote *holistic thinking*, which is defined as a thinking style "involving an orientation to the context or field as a whole, including attention to relationships between a focal object and the field, and a preference for explaining and predicting events on the basis of such relationships" (Nisbett et al. 2001, p. 293). For example, when processing an ad

message, Easterners tend to focus on integrating different elements in an ad and ad-relevant information (Aaker and Sengupta 2000).

Cross-cultural studies have shown that the correspondence bias appears to be stronger in Western cultures (e.g., Norenzayan, Choi, and Nisbett 1999). The *correspondence bias* or *fundamental attribution error* (Gilbert and Patrick 1995) is the tendency to see behavior as a product of the actor's dispositions and to ignore important situational determinants (Masuda and Nisbett 2001). Westerners are more likely to explain behavior in terms of presumed internal factors such as personality traits and other dispositional terms. Masuda and Nisbett (2001) examined the effect of culture on the *focus of attention*: they exposed European American participants to scenes of fish and other animated objects. European American participants tended to make statements about the fish rather than the background environment because they focused on single items and conduct deterministic analyses of individual elements. They found that European American perceptions of objects was remarkably independent of their contexts. In marketing communication, Aaker and Sengupta (2000) reported similar findings. They found that when faced with information incongruity, which was conceptualized as "the orthogonality between valence of two sources of information in their study" (p. 68), North American participants would follow an *attenuation strategy* where they were influenced more by attribute information. They explained that since North Americans were predisposed with an analytic thinking style that triggered the attenuation strategy: they were more likely to make decisions by choosing one alternative over another.

In contrast, Easterners obtain a more holistic system of thought so that when they attend to the object, they would attribute the object's relations with the field and causality to contexts and situations (Nisbett and Miyamoto 2005). In the same study conducted by Aaker and

Sengupta (2000), they found that when faced with information incongruity, East Asians would follow the *additivity strategy* where they were influenced by both attribute information and source of information. They explained that it was because East Asians were predisposed with a holistic thinking style. They also suggested that holistic thinking explained why Hong Kong consumers valued and processed contradictory pieces of information. In general, East Asian cultures have a heightened need for harmony versus North American cultures. In their study, Masuda and Nisbett (2001) found that when Japanese participants were exposed to the scenes of fish and other objects, they tended to make more statements about the relations between the fish and the background environments because Japanese tended to process information in a holistic fashion and relate elements of items to one another. Peng and Nisbett (1999) found that Chinese participants were more tolerant of apparently contradictory arguments and tended to reached a compromise. And they preferred dialectic proverbs to non-dialectic proverbs. Moreover, they reported that Chinese participants moderated their views when confronted with opposing propositions, whereas American participants became more extreme. They also discussed three principles of Chinese dialectical thinking: the principle of change (i.e., reality is always changing), the principle of contradiction (i.e., two sides of any contradiction can exist in an active harmony), and the principle of relationship of holism (i.e., entities that are opposed to one another and yet are also connected in time and space as a whole). Similarly, Bagozzi et al. (1999) reported that East Asians were more likely to tolerate information incongruity than North Americans. This study also found that Easterners conceived positive and negative affect in a dialectic fashion, which indicates that they might be more tolerant to contradictory feelings than Westerners because of their predisposed holistic thinking style.

In summary, these findings indicate that Easterners tend to adopt a holistic cognitive thinking style, whereas Westerners tend to adopt an analytic cognitive thinking style. Since Easterners are more likely to use holistic thinking style, they tend to draw inferences from the ad messages (i.e., product features, attributes, ad copy etc.). Processing a message in this way will lead Easterners to pay less attention to the (in)congruent ad message appeals. Thus, it is predicted that Easterners will process both congruent and incongruent ad in a similar pattern. In contrast, Westerners who use an analytic thinking style are likely to focus on product features, attributes and ad copy separately. This type of processing will allow Westerners to scrutinize (in)congruent ad message appeal. Inspired by many past studies, American participants were selected as the representative of Westerners and Chinese participants were selected as the representative of Easterners in the current study. Therefore, it is expected that:

H2: There will be an interaction between culture and ad congruity, such that (a) American participants will have more positive persuasion outcomes (i.e., attitudes toward the ad and purchasing intentions) when they read an ad using congruent message appeal as compared to an ad using incongruent message appeal; (b) Chinese participants will have similar persuasion outcomes when they read either an ad using congruent message appeal or an ad using incongruent message appeal.

2.4. Three-way Interaction of Mood State, Cultural background and (In)congruent Message Appeal

Though there are theoretical supports for the respective impact of mood and culture on people's information processing style, very few studies have examined the interaction effect of mood and culture on people's information processing style and evaluation of information

incongruity in advertising message. Thus, the proposed three-way interaction of mood, culture, and (in)congruent message appeal is relatively exploratory. A study conducted by Sar and Duff (2011) found that mood did not override cultural predisposition of elaborations; instead, mood acted to enhance cognitive styles that was predisposed by culture. They argued that a key feature of mood states was its transient, fleeting, and temporal nature and its capacity to considerably influence an individual's perspective and judgment, whereas the impact of cultural background in cognitive thinking reflected inherent characteristics that might not be completely overridden by situational factors (Tice et al. 2001). Thus, Sar and Duff (2011) draw the conclusion that mood states and cultural backgrounds can influence people's information processing style simultaneously. Since both negative mood states and Westerners' (Americans') cultural predispositions trigger an analytic thinking style, it expected that the level of their analytical processing style will be the highest. Thus, Americans in a negative mood will prefer congruent ad information to incongruent ad information since they are able to identify the incongruity between message appeals and product type. Similarly, it expected that Easterners (Chinese) in a positive mood will have the highest holistic thinking style. This is because Chinese tend to adopt a holistic thinking style and their positive mood also triggers a holistic thinking style. Because of their processing style, Chinese in a positive mood will be less likely to notice the incongruity between the ad appeal and the product type. They will process both congruent and incongruent ad in a similar pattern. Based on the above rationales, it is hypothesized that:

H3: There will be an interaction between mood, culture, and ad congruity such that (a) American participants in a negative mood will have more positive outcomes (i.e., attitudes toward the ad and purchasing intentions) when they read an ad using congruent message appeal as compared to an ad using incongruent message appeal; (b) Chinese participants in a positive

mood will have similar attitudes toward the ad and purchase intentions when they read either an ad using congruent message appeal or an ad using incongruent message appeal.

However, for Americans in a positive mood, their analytic processing style will be lower. This is because positive mood generally triggers holistic processing style that might influence their predisposed analytic processing style. Therefore, Americans in a positive mood might be able to process ad information both holistically and analytically. Similarly, for Chinese in a negative mood their holistic processing style might be lower because of the negative mood, which triggers analytic processing style. Thus, it is expected that Chinese in a negative mood might use both holistic and analytic cognitive style when process an ad message appeal. Due to the lack of empirical evidence of what will happen in these two special situations, a research question is raised:

RQ1: What are persuasion outcomes for (a) American participants in a positive mood and (b) Chinese participants in a negative mood when they read either an ad using congruent message appeal or an ad using incongruent message appeal?

CHAPTER 3: STUDY 1 METHODS

3.1. Design and Participants

A 2 (mood: positive, negative) by 2 (culture: American, Chinese) by 2 (message appeal: congruent appeal, incongruent appeal) between-subjects experimental design was used. Two hundred and twenty-four participants (61% female, M_{age} = 28.15) were recruited to participate in an online experiment. For American participants (N = 109, 55% female, M_{age} = 32.43), they were recruited from Amazon MTurk for the compensation of $0.75. The majority of American participants were either Caucasians (73.4%) or African American (13.8%). For Chinese participants (N = 115, 67% female, M_{age} = 24.1), they were recruited from a major university in China. The recruited Chinese students were required to have not stayed in the North American or European countries for more than 3 years to ensure that acculturation had not occurred to a marked degree that would influence their holistic thinking style (Nisbett et al. 2001, Nisbett 2003). The recruiting information was posted on the university's online forum website. Chinese participants received 5 Yuan ($0.73) for completing the questionnaire. The use of incentives and all other procedures were approved by the Institutional Review Board where the data were collected.

3.2. Stimuli

To manipulate the incongruity between product type and message appeal while controlling for all other factors in the ads, the researcher designed two ad stimuli. According to the previous study conducted by Drolet et al. (2007), greeting card was rated as a highly hedonic product. The materials used in this study were two different versions of a greeting card advertisement. In the congruent ad condition, experiential message appeal was used. The text in

the congruent ad includes “A collection of cards that captures and expresses the way you feel” and “Bring happiness to the special people in your life, with cards to melt their hearts”. In the incongruent ad condition, functional message appeal was used. The text in the incongruent ad includes “A collection of cards for every occasion and every relationship” and “Crafted on quality paper stock and featuring colors that won’t fade”. To reinforce the experiential context of greeting cards, pictures of romantic scenarios such as a woman receiving a greeting card with a rose were added to both versions of the advertisements. The ad copies used in two ad stimuli were adapted from Drolet et al.’s study (2007). The Chinese versions of ad stimuli were translated from the English versions. The ad copies were then back-translated by a bilingual graduate student and revised by a professional Chinese-English translator. See Appendix C for the ad stimuli used in the experiment.

3.3. Pretests

The first pretest was conducted with 43 participants (51% American, 49% Chinese). It has two goals: (1) to identify whether greeting card was viewed as a highly hedonic product; (2) to examine participants’ perceived relevance to greeting cards; (3) to examine if the English version and the Chinese version have similar level of credibility, relevancy, and persuasiveness; (4) to examine if the congruent ad and the incongruent ad have similar level of credibility, relevancy, and persuasiveness. The second pretest was conducted with 46 participants (52% American, 48% Chinese) after the incongruent ad in Chinese version was improved in terms of translation and wording. The main goals were: (1) to ensure that two language versions of the incongruent ad have similar level of credibility, relevancy, and persuasiveness; (2) to ensure the perceived functional appeal was significantly stronger in the incongruent ad.

3.3.1. Measures in Pretests

To examine whether greeting cards were regarded as a highly hedonic product, participants were asked to rate this product using four items (1-7; anchors= "strongly disagree" and "strongly agree"; Drolet et al. 2007): "The decision to buy greeting cards is (1) based a lot on feelings, (2) mainly based on emotions, (3) mainly logical or objective*, and (4) mainly based on the functional facts*" ($\alpha = .70$). To examine whether greeting cards were relevant to participants' daily life, participants were asked to rate this product using four items (1-7): "Greeting cards s are (1) important, and (2) relevant to me," "greeting cards mean nothing to me*," and "I use greeting cards in special occasions" ($\alpha = 0.81$). Then participants were randomly assigned to either a congruent greeting card ad or an incongruent greeting card ad. Then I examined the degree (1-7) to which the ad was perceived as using experiential appeal ("This ad induces feelings and sentiments," "I have strong emotion for this ad," "This ad is an emotional ad.", $\alpha = .79$) or using functional appeal ("This ad helps me to know about the product attributes," "I think this ad is objective," "This ad is a functional ad.", $\alpha = .80$). To obtain the levels of perceived relevancy of the ad, participants were asked to rate the ad in a seven-point semantic differential scale: (1) Not meaningful to me - Meaningful to me, (2) Irrelevant to me – Relevant to me, (3) Unimportant to me - Important to me ($\alpha = .91$). To obtain the levels of perceived credibility of the ad, participants were asked to rate the ad in a seven-point semantic differential scale: (1) Not believable – Believable; (2) Unrealistic – Realistic; (3) Not credible – Credible ($\alpha = .96$). To obtain the levels of perceived persuasiveness of the ad, participants were asked to rate the ad in a seven-point semantic differential scale: (1) Unconvincing – Convincing; (2) Unpersuasive – Persuasive ($r = .81$).

3.3.2. Results

Greeting cards were regarded as a relatively high-hedonic product ($M = 5.90$, $SD = 1.12$) on a seven-point scale. And greeting cards were not regarded as an irrelevant product ($M = 4.39$, $SD = 1.46$) on a seven-point scale. In the meantime, an independent samples t-test was performed to examine if there is a significant difference in participants' perception of experiential appeal in two different ad conditions. The difference was significant, $t(41) = 3.43$, $p < .001$. Participants who read the congruent ad perceived the experiential appeal more strongly ($M = 4.51$, $SD = 1.37$) than participants who read the incongruent ad ($M = 3.17$, $SD = 1.19$). A similar independent samples t-test was performed to examine if there is a significant difference on participants' perception of functional appeal in two different ad conditions. The difference was not significant, $t(41) = -1.72$, $p > .05$. Participants who read the incongruent ad did not perceive the functional appeal more strongly ($M = 4.61$, $SD = 1.39$) than participants who read the congruent ad ($M = 3.90$, $SD = 1.28$). Results showed that the manipulation of the functional appeal needed to be strengthened.

The level of relevancy, credibility and persuasiveness did not vary significantly between two versions of ad. However, there were significant cultural differences on participants' perception of the level of relevancy and persuasiveness of the incongruent ad. Chinese participants rated the incongruent ad as less relevant and persuasive to them ($M_{rel} = 2.93$, $SD_{rel} = 1.19$; $M_{pers} = 2.80$, $SD_{pers} = .89$) compared to American participants ($M_{rel} = 4.47$, $SD_{rel} = 1.09$, $p < .01$; $M_{pers} = 4.88$, $SD_{pers} = 1.56$, $p < .01$). These results (i.e., the incongruent ad in Chinese was perceived as less relevant and persuasive compared to the incongruent ad in English) indicated that the incongruent ad in Chinese needed further improvements in terms of design and translation.

The second pretest was conducted after the incongruent ad in Chinese version and English version were both improved in terms of translation and wording (46 participants, 52% American). Participants who read the incongruent ad perceive the functional appeal more strongly ($M = 5.11$, $SD = 1.47$) than participants who read the congruent ad ($M = 4.23$, $SD = 1.46$, $p < .05$). And there were no significant cultural differences on relevancy, persuasiveness and credibility of the incongruent ad.

3.4. Experimental Procedure

After providing informed consent, both American and Chinese participants were randomly assigned to one of the four experimental conditions by using the randomization function embedded in the Qualtrics platform. Firstly, participants were asked to write an essay for 6-7 minutes about their personal life events that made them feel really good or really bad (mood manipulation) for another independent study (Forgas, 1995). This was actually a mood induction. This procedure was used by previous studies and it was proven to be a successful mood manipulation technique. Then they were asked to read one of two versions of a greeting card ad (congruent or incongruent) and evaluate it for the second study. The collection of dependent measures and basic demographic information, followed by the debriefing, concluded the session.

3.5. Measures

Mood states were measured for the mood induction check. Participants were asked to indicate how they were feeling when they were writing the essay about the special moment in their lives by answering six semantic differential 7-point scale questions ($\alpha = .748$). This scale

measures both mood (e.g., sad-happy; α = .942) and arousal (e.g., still-stimulated; α = .600). This measure was adapted from research about the effect of mood on consumers' attitudes toward the advertisement (Chang 2004; Sar, Nan, and Myers 2010; Forgas 1995)

Participants' cognitive thinking style can mediate the effect of mood and culture on congruent and incongruent ads and helps to understand this process more deeply. The ***cognitive thinking style*** was measured via the Analysis-Holism Scale (AHS) adapted from the study of Choi et al. (2007). This scale (α = .717) was used to measure analytic versus holistic thinking tendency by asking participants to rate a series of items such as "An individual who is currently honest will stay honest in the future" and "Everything in the universe is somehow related to each other" on the scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Then participants were asked to evaluate the ad on four items: bad/good, dislike/like, unfavorable/favorable and negative/positive. Each item was rated on a seven-point scale (Muehling 1987). These items were averaged to create an ***attitude toward the ad*** index (α = .895). Then, participants were asked questions about ***purchasing intentions***. The purchase intention was measured using three items: "The likelihood of buying the product", "The likelihood of trying the product", and "The likelihood of recommending the product to friends and relatives" (Rossiter and Percy 1980). Each of the items was rated on a 7-point scale. All items were averaged to create a purchase intention index (α = .902).

CHAPTER 4: STUDY 1 RESULTS

The descriptive statistics (including means and standard deviations) for outcome variables (i.e., attitudes toward the ad and purchasing intentions) in each cultural, mood, and ad condition were generated (see Table 1 in Appendix A) before running the inferential statistical analysis.

4.1. Mood Manipulation Check

The mood manipulation check scale was measured twice: one right after the mood manipulation and the other one at the end of the questionnaire. The results for mood manipulation check in both times were similar. So only the second-time of mood manipulation check was reported here. An analysis of variance (ANOVA) suggested that participants who were asked to report positive life stories reported feeling more positive ($M = 5.409$, $SD = 1.575$) than did those who reported negative life stories ($M = 2.642$, $SD = 1.548$), $F[1,222] = 175.558$, $p < .001$, $\eta_p^2 = .442$. However, another ANOVA showed that participants who were in a positive mood ($M = 4.135$, $SD = 1.684$) also reported feeling more aroused than did those who were in a negative mood ($M = 3.551$, $SD = 1.616$), $F[1,222] = 7.09$, $p = .009$, $\eta_p^2 = .031$. According to the affect-as-information theory (Schwarz 1990), mood is a mild or diffused positive or negative affective state. The arousal level should be low and there should not be difference in arousal levels between different mood states. However, previous study (Forgas 1995) suggested that sometimes people wrote different kinds of stories during an experimental procedure that could trigger different levels of arousal. Since the significant difference in the level of arousal was not expected and it was not the focus of the current study, it was included in the analyses as a covariate (controlling for the level of arousal).

4.2. Interaction of Mood and Culture on Thinking Style

According to the literature reviewed above, I expected that Chinese participants in a positive mood would have the highest mean values of AHS and American participants in a negative mood would have the lowest mean values of AHS. A two-way ANCOVA was conducted by using mood conditions and cultural conditions as two fixed factors, the AHS values as the dependent variable, and perceived arousal (first-time measure) as the covariate. The results showed that the interaction of mood and culture on thinking style was not significant (F[1,219] = .048, p = .827, η_p^2 = .000), neither was the main effect of mood (F[1,219] = .486, p = .487, η_p^2 = .002). The main effect of culture on thinking style was significant (F[1,219] = 18.903, p < .001, η_p^2 = .079).

4.3. Hypothesis Testing

4.3.1. Interactions between Ad Congruity and Mood

A two-way ANCOVA was conducted by using mood conditions and ad conditions as two fixed factors, attitudes toward ad as the dependent variable, and perceived arousal (first-time measure) as the covariate. Results showed that the interaction of mood and ad congruity on attitudes toward the ad was not significant (F[1,219] = .732, p = .393, η_p^2 = .003), neither was the main effect of mood on attitudes toward the ad (F[1,219] = .007, p = .933, η_p^2 = .000). The main effect of ad congruity on attitudes toward the ad was significant (F[1,219] = 7.317, p = .007, η_p^2 = .000). ANCOVA was conducted by using mood conditions and ad conditions as two fixed factors, purchasing intentions as the dependent variable, and perceived arousal as the covariate. Results showed that the interaction of mood and ad congruity on purchasing intentions was not significant (F[1,219] = 2.15, p = .144, η_p^2 = .010). The main effect of mood on purchasing

intentions was not significant either (F[1,219] = .003, p = .96, η_p^2 = .000). The main effect of ad congruity on purchasing intentions was also not significant (F[1,219] = 0, p = .989, η_p^2 = .000).

Although the interaction of mood and ad congruity was not significant, the results of simple main effects of ad congruity on attitudes were interesting. One-way ANCOVAs were conducted by using attitudes toward the ad as the dependent variable, the ad condition as a fixed factor, and the level of arousal as a covariate. Results showed that the simple main effect of ad congruity on attitudes was not significant when participants were in a positive mood, F[1,112] = 1.680, p = .198, η_p^2 = .015. However, the simple main effect of ad congruity on attitudes was significant when participants were in a negative mood, F[1,106] = 7.747, p = .006, η_p^2 = .068. Participants in a negative mood had significantly more positive attitudes toward the congruent ad (M = 5.662, SD = .179) than the incongruent ad (M = 5.046, SD = .173). The effect of covariate (the level of arousal) was not significant in either mood condition. Thus, the H1(a) was partially supported. Other two one-way ANCOVAs was conducted by using purchasing intentions as the dependent variable, the ad condition as a fixed factor, and the level of arousal as a covariate. Results showed that the simple main effect of ad congruity on purchasing intentions was not significant in both mood conditions (for positive mood: F[1, 112] = .994, p = .321, η_p^2 = .009; for negative mood: F[1, 106] = 1.127, p = .291, η_p^2 = .011). Thus, H1(b) was not supported.

4.3.2. Interactions Between Ad Congruity and Culture

A Two-way ANOVA was conducted where attitudes was entered as a dependent variable, and the ad condition as well the cultural condition were entered as fixed variables. Results of A two-way ANOVA showed that the interaction of ad congruity and culture on attitudes toward the ad was marginally significant, F[1,220] = 3.289, p = .071, η_p^2 = .015. As previously reported, the

main effect of ad congruity on attitudes toward the ad was significant, $F[1,220] = 7.294$, $p = .007$, $\eta_p^2 = .032$. However, the main effect of culture on the attitudes toward the ad was not significant, $F[1,220] = 1.405$, $p = .237$, $\eta_p^2 = .006$. Another two-way ANOVA was conducted where purchasing intentions was entered as a dependent variable, and ad conditions and cultural conditions were entered as fixed variables. No significant results were found: the interaction of culture and ad congruity on purchasing intentions was not significant, $F[1,220] = .016$, $p = .90$, $\eta_p^2 = .000$. The main effect of culture on purchasing intentions was not significant ($F[1,220] = 1.106$, $p = .294$, $\eta_p^2 = .005$) and the main effect of ad congruity on purchasing intentions, $F[1,220] = .000$, $p = .982$, $\eta_p^2 = .000$.

To further test the interaction effect of ad congruity and culture, one-way ANOVAs were conducted by using ad conditions as the independent variable, attitudes and purchasing intentions as the dependent variables respectively. The results showed that the simple main effect of ad congruity on Chinese participants' attitudes toward the ad was significant, $F[1, 113] = 11.267$, $p < .001$, $\eta_p^2 = .091$. Chinese participants preferred the congruent ad ($M = 5.830$, $SD = 1.071$.) to the incongruent ad ($M = 5.059$, $SD = 1.366$). However, American participants did not have specific preference to either ad in terms of attitudes ($F[1, 107] = .357$, $p = .552$, $\eta_p^2 = .003$) as well as purchasing intentions ($F[107] = .010$, $p = .922$, $\eta_p^2 = .000$). Chinese participants also did not have specific preference to either ad in terms of purchasing intentions, $F[1,113] = .006$, $p = .938$, $\eta_p^2 = .000$. Therefore, H3(a) and H3(b) was not supported.

4.3.3. Three-way interactions of Mood, Culture, and Ad Congruity

To test the interaction of mood, culture, and ad congruity, a three-way ANCOVA was conducted using the culture conditions, ad conditions, and mood conditions as three independent

variables, attitudes toward the ad as the dependent variable, and the level of arousal as the covariate. The results for three-way interaction was not significant, $F[1,215] = 1.658$, $p = .791$, $\eta_p^2 = .000$. A similar three-way ANCOVA with purchasing intentions as the dependent variable was also conducted and the three-way interaction was not significant, $F[1,215] = .045$, $p = .832$, $\eta_p^2 = .000$.

H3(a) predicted that American participants in a negative mood would prefer the congruent ad to the incongruent ad. One-way ANCOVAs showed that American participants in a negative mood did prefer the congruent ad to the incongruent ad in terms of attitudes toward the ad and purchasing intentions, but the differences were not significant (for attitudes, $F[1,54] = 1.123$, $p = .294$, $\eta_p^2 = .021$; for purchasing intentions, $F[1,54] = .561$, $p = .457$, $\eta_p^2 = .009$). H3(b) predicted that Chinese participants in a positive mood would not have specific preference to either ad. One-way ANOVAs showed that Chinese participants in a positive mood had similar levels of purchasing intentions regardless of what ad they read, $F[1,60] = .820$, $p = .369$, $\eta_p^2 = .013$. However, they had more positive attitudes toward the congruent ad than the incongruent ad, $F[1,60] = 3.912$, $p = .053$, $\eta_p^2 = .052$.

To answer RQ1, a One-way ANCOVA showed that American participants in a positive mood did not have specific preferences to either ad (for attitudes, $F[1,51] = .021$, $p = .886$, $\eta_p^2 = .001$; for purchasing intentions, $F[1,51] = .296$, $p = .589$, $\eta_p^2 = .003$). Another one-way ANOVA showed that Chinese participants in a negative mood had similar levels of purchasing intentions regardless of what ad they read, $F[1,51] = .859$, $p = .358$, $\eta_p^2 = .015$. However, they had more positive attitudes toward the congruent ad than the incongruent ad, $F[1,51] = 8.371$, $p = .006$, $\eta_p^2 = .158$.

CHAPTER 5: STUDY 1 DISCUSSION

The Study 1 probes into the two-way interaction of mood and ad congruity, culture and ad congruity as well as the three-way interaction of mood, culture, and ad congruity. An online experiment was conducted. Results showed that there was a main effect of the type of message appeals (i.e., congruent/incongruent ad message appeal) on participants' attitudes toward the ad but not on purchasing intentions, such that participants had more positive attitudes toward the congruent ad message appeal than the incongruent ad message appeal. Cultural background was found to influence participant's cognitive thinking style: Chinese participants tended to adopt a more holistic thinking style than American participants, which corresponds to the findings of many studies in cross-cultural psychology (Bagozzi, Wong, and Yi 1999; Nisbett et al. 2001). But this difference is not salient – both cultural groups have relatively high scores on the measuring scale ($M_{American}$ = 4. 372, $M_{Chinese}$ = 4.761). Mood states did not have significant influence on participants' thinking styles, which is contrary to what was proposed by the theory of affect-as-information (Huber, Beckmann, and Herrmann 2004; Schwarz 1990). One possible explanation is that the effects of mood could only trigger one's unnoticed and temporary difference in thinking style (Sar and Duff 2010), which the current measuring scale (i.e., AHS) cannot capture. Past studies usually used open-ended cognitive responses in the questionnaire to capture the impact of mood on changing in cognitive thinking style (Sar, Nan, and Myers 2010; (Wen, Sar, and Anghelcev 2017). Thus, the thought-listing question will be added to the Study 2.

The results showed a simple main effect of negative mood on attitudes towards the ad: participants in a negative mood had more positive attitudes toward the congruent ad than the incongruent ad, whereas participants in a positive mood did not have a specific preference. The interaction effect of mood and (in)congruent message appeal on attitudes and purchase intentions

was not significant. This finding is partially in alignment with what is proposed by the theory of affect-as-information that people in a negative mood tend to focus more on ad messages in detail, such as ad copy, product attributes etc. This in turn enables them to spot the incongruity more easily than people in a positive mood (Braun-LaTour et al. 2007). This finding also corresponds to the cognitive resource allocation theory, which proposed that people in a negative mood would allocate less cognitive resource to the target task (Ellis and Ashbrook 1988), therefore, they are less able to resolve the incongruity. Furthermore, due to the motivational self-serving bias, people in a negative mood are more motivated to seek for ways to get rid of the negative feelings (Sar, Nan, and Myers 2010). Thus, when they read the experiential ad message, which emphasizes bringing happiness and connecting with the "special one" in life, they might be able to retrieve those positive memories such as the wonderful time they spent with their family and friends that could help them to mitigate the negative mood.

The results also indicate a marginally significant two-way interaction of cultural background and (in)congruity message appeal on attitudes: Chinese participants had more positive attitudes toward the congruent ad than the incongruent ad, whereas American participants did not have a specific preference. This finding is in contrast to what was found in past studies (e.g., Aaker and Sengupta 2000; Bagozzi, Wong, and Yi 1999; Peng and Nisbett 1999) and one of the possible explanations could be that due to the dominant collectivistic and interdependent culture in Chinese society, Chinese people concern more about maintaining the relationship with in-group members (Nisbett and Masuda 2003), so that when the ad emphasizes the experiential features of greeting cards (e.g., Bring happiness to the special people in your life, with cards to melt their hearts), it would strike a chord with many Chinese consumers, especially when considering Chinese prefer implicit and indirect expressions of love and care such as

sending greeting cards. This contrasting finding indicates that further investigation is imperatively needed.

Since I am interested in the (in)congruity between the ad appeal and the product type (i.e., utilitarian products pair with either experiential or functional advertising messages, and hedonic products pair with either experiential or functional advertising messages) and Study 1 only tested the first two combinations (i.e., a highly hedonic product paired with either utilitarian or hedonic appeal). To be able to make a stronger case for both theory and practice, I decided to conduct Study 2. Study 2 examined different ad message appeals paired with a utilitarian product (printer) (i.e., a highly utilitarian product paired with either utilitarian or hedonic appeal). Specifically, Study 2 replicated Study 1 by examining how mood and culture impact people's evaluations of printer ads with either congruent or incongruent appeals. In addition to examining a new product, open-ended cognitive responses were also measured in Study 2 in order to more accurately capture people's processing style. Measuring processing style by both the AHS scale and cognitive responses will strengthen the study's findings. The AHS scale contains general statements about the world and life, which is usually measured to capture the cultural difference in predisposed processing style. The cognitive responses require participants to list their thoughts related to the material, which is more subject to the content of the material (e.g., message appeal) and situational factors (e.g., mood states) and is usually measured to capture the impact of mood on individuals' transitory processing style. By having these two different measures of processing style, the author can better understand the changes of processing style in two levels (i.e., predisposed level and transitory level) and the interactive effects of mood and culture on processing style. Study 2 would also help to further test the generalizability of the finding and to

test if the results were caused by the ad appeal (a potential confound) rather than the ad (in)congruity, (i.e., a highly utilitarian product as the targeted product in the ads).

Since the purpose of the Study 2 was to generalized the findings of Study 1, thus, the hypotheses and research questions of Study 2 were the same as in Study 1. Even though a different type of product was used in Study 2, the same theoretical framework was used to formulate the predictions for Study 2. Thus, based on the literature discussed above, it is expected that all of the hypotheses and research questions in Study 1 could also be applied in Study 2.

CHAPTER 6: STUDY 2 METHODS

6.1. Design and Participants

The study 2 used the same experimental design as the study 1. Two hundred and fourteen participants (63% female, M_{age} = 28.64) were recruited to participate an online experiment. For American participants (N = 107, 57% female, M_{age} = 34.30), they were recruited from Amazon MTurk. The majority of American participants were either Caucasian (75.7%) or African American (10.3%). For Chinese participants (N = 107, 70% female, M_{age} = 22.99), they were recruited from a major university in China.

6.2. Stimuli

A highly utilitarian consumer product, household printer was chosen as the featured product in the Study 2. Previous studies show that printers are perceived to be a highly utilitarian product (Khan and Dhar 2010; Kim and Kim 2016). The experiential message appeal includes texts like "let your creativity and memory come to life" and "print out those wonderful life moments that get you going every day" and the functional message appeal includes texts like "4800x1200 optimized DPI resolution", "A 30-page auto document feeder", and "Fast and high-quality performance".

6.3. Pretest

The ad stimuli were pretested. The pretest was conducted with 69 participants (48% American, 52% Chinese). The measures used in Study 2 pretest were the same measures that were used in Study 1 except that the product type was calculated in a reverse way (the higher, the more utilitarian the product is) and the measures of advertising appeals. Another different

measure is the scale of perceived message appeal: participants were asked about the perceived ad appeal by completing five semantic differential items ("This ad for Zija Printer informs me about": Functions of this product – Experiences using this product; "This ad for Zija Printer makes me focus on": My objective thoughts about the product – My subjective feelings about the product; "I think this ad is": (1) Functional – Emotional; (2) Utilitarian – Experiential; (3) Rational – Affective ($\alpha = .88$). Thus, as the mean value becomes smaller, the ad appeal is more functional; as the mean value becomes larger, the ad appeal is more experiential.

Results showed that household printers were regarded as a relatively highly utilitarian product ($M = 5.38$, $SD = 1.19$) in a seven-point scale. And household printers were not regarded as an irrelevant product ($M = 5.15$, $SD = 1.22$) in a seven-point scale. In the meantime, an ANOVA of ad conditions on perceived ad appeal was conducted to examine if there is a significant difference in participants' perception of advertising appeal in two different ad conditions. Results showed that there was a significant difference in the perception of advertising appeal between two ad conditions, $F[1,65] = 58.327$, $p < .001$, $\eta_p^2 = .232$. Participants who read the congruent ad thought the ad was more functional and utilitarian ($M = 3.00$, $SD = 1.16$) and participants who read the incongruent ad thought the ad was more emotional and hedonic ($M = 5.10$, $SD = .89$).

The level of relevancy, credibility and persuasiveness did not vary significantly between two versions of ad. Both congruent and incongruent ads had similar levels of perceived relevancy ($M_{con} = 4.57$, $SD_{con} = 1.53$; $M_{incon} = 4.44$, $SD_{incon} = 2.00$), similar levels of perceived credibility ($M_{con} = 5.45$, $SD_{con} = 1.49$; $M_{incon} = 5.31$, $SD_{incon} = 1.56$), and similar levels of perceived persuasiveness ($M_{con} = 5.09$, $SD_{con} = 1.57$; $M_{incon} = 4.72$, $SD_{incon} = 1.82$). There were no significant cultural differences on participants' perceived relevancy, persuasiveness, and

persuasiveness in both ad conditions. Overall, these results indicated that the selection of the product and the manipulation of ad appeals were successful and the ad stimuli could be used in the formal experiment.

6.4. Measures

One new measure was added in Study 2: the horizontal-vertical cultural orientation (HI: α = 64; VI; α = .725; HC: α = .79; VC: α = .717; Shavitt et al. 2006), and open-ended cognitive responses. The AHS measurement for the cognitive thinking style (Choi et al. 2007) was also revised because the previous set of items failed to capture the cultural differences in Study 1. There are four dimensions/domains in the measure: locus of attention, causal theory, perception of change, and attitude toward contradictions. Since the research question mainly probes into how people process incongruent information, the dimensions of locus of attentions (α = .79) and attitude toward contradictions (α = .61) were chosen. An example item for the locus of attentions is "It is more important to pay attention to the whole than its parts"; an example item for the attitudes toward contradictions is "It is desirable to be in harmony, rather than in discord, with others of different opinions than one's own".

CHAPTER 7: STUDY 2 RESULTS

The descriptive statistics (including means and standard deviations) for outcome variables (i.e., attitudes toward the ad and purchasing intentions) in each cultural, mood, and ad condition were generated (see Table 2 in Appendix A) before running the inferential statistical analysis.

7.1. Mood Manipulation Check

The same procedure was used for mood manipulation check in Study 2 (i.e., measures for mood manipulation check were placed right after the mood induction procedure and at the end of the questionnaire). Since the results for mood manipulation check in Study 2 were similar in both times, only the measure of the second mood manipulation (i.e., at the end of the questionnaire) check was reported here. The results of mood manipulation check were similar to the ones in Study 1: the main effect of mood on valence was significant, $F[1,212] = 264.413$, $p < .001$, $\eta_p^2 = .555$. Participants in a positive mood ($M = 5.901$, $SD = 1.101$) had more positive valence than those in a negative mood ($M = 2.914$, $SD = 1.556$); the main effect of mood on arousal was also significant, $F[1,212] = 11.319$, $p = .001$, $\eta_p^2 = .051$. Participants in a positive mood ($M = 3.994$, $SD = 1.257$) had higher arousal than those in a negative mood ($M = 3.410$, $SD = 1.284$).

7.2. Coding Cognitive Responses

According to the conceptualization of relational and item-specific information processing style elaborated in the literature review, responses that focus on comparison, categorization and product category thoughts, and advertising category thoughts was coded as reflecting relational processing. If the response extended the certain function to actual using scenario in life or clearly mentioned that the certain function meets his/her need, it was also counted as reflecting

relational processing. In contrast, responses that focus on product attribute (price, quality, function, etc.), or the ad attribute (design, layout, quality, color, etc.) was coded as reflecting item-specific processing (Meyers-Levy 1991). The author and another native English speaker coded all the English responses (inter-coder reliability = .92 for evaluations of the ad, inter-coder reliability = 0.85 for evaluations of the product). The author and another native Chinese speaker coded all the Chinese responses (inter-coder reliability = .93 for evaluations of the ad, inter-coder reliability = .92 for evaluations of the product). Discrepancies were averaged for the final results.

To create an index for type of thoughts, each response was separated into several units and the coders needed to categorize each unit into item-specific thought, relational thought, or uncertain. The percentage of relational thoughts and item-specific thoughts was calculated by dividing the number of each thought by the total number of thoughts a participant made. In this way, scores were standardized to represent the weights of two types of processing for each participant.

The coding results showed that American participants in a positive mood generated more relational thoughts (M = .548, SD = .376) than item-specific thoughts (M = .450, SD = .376) for the evaluations of the advertisement. In contrast, American participants in a negative mood generated more item-specific thoughts (M = .658, SD = .351) than relational thoughts (M = .342, SD = .351) for the evaluations of the advertisement. Furthermore, the difference in the relational response patterns of American participants in two mood conditions were significant (F[1,100] = 8.156, p = .005, η_p^2 = .075) and the difference in the item-specific response patterns of American participants in two mood conditions were also significant (F[1,100] = 8.156, p = .005, η_p^2 = .075) for the evaluations of the advertisement. For the evaluations of the product, results were similar: American participants in a positive mood generated more relational thoughts (M = .545, SD

= .414) than item-specific thoughts (*M* = .455, *SD* = .414), whereas American participants in a negative mood generated more item-specific thoughts (*M* = .656, *SD* = .364) than relational thoughts (*M* = .333, *SD* = .366). The difference in the relational response patterns of American participants between two mood conditions were significant ($F[1,96] = 7.137$, $p = .009$, $\eta_p^2 = .069$) and the difference in the item-specific response patterns of American participants in two mood conditions were also significant ($F[1,196] = 6.476$, $p = .013$, $\eta_p^2 = .063$) for the evaluations of the product. There was no significant main effect of ad appeal or significant interaction effect of mood and ad appeal on the response patterns.

As for the coding results of Chinese participants' responses to the evaluations of the advertisement, Chinese participants in a positive mood generated more item-specific thoughts (*M* = .684, *SD* = .322) than relational thoughts (*M* = .309, *SD* = .319), which was in contrast to what was hypothesized. Participants in a negative mood also generated more item-specific thoughts (*M* = .796, *SD* = .463) than relational thoughts. The main effect of mood on the response patterns was not significant, so did the main effect of ad appeals. However, the interaction effect of mood and ad appeals on the item-specific thoughts was significant based on the result of a two-way ANOVA ($F[1,100] = 7.396$, $p = .008$, $\eta_p^2 = .069$). Participants who read the functional ad appeal had a higher percent of item-specific thoughts for those who were in a negative mood (*M* = .967, *SD* = .455) than those who were in a positive mood (*M* = .636, *SD* = .358). However, participants who read the experiential ad appeal had a similar percentage of item-specific thoughts for those who were in a negative mood (*M* = .744, *SD* = 266) and those who were in a positive mood (*M* = .664, *SD* = .433). See Figure 1 for the visualized illustration of the significant interaction effect.

A slightly different patterns were found for Chinese participants' responses to the evaluations of the product, participants in a positive mood generated slightly more item-specific

thoughts (M = .539, SD = .423) than relational thoughts (M = .443, SD = .421), which was in contrast to what was hypothesized. Participants in a negative mod generated more item-specific thoughts (M = .679, SD = .380) than relational thoughts (M = .321, SD = .380). The main effect of mood on the item-specific response pattern was significant (F[1,97] = 3.967, p = .049, η_p^2 = .039). Participants in a negative mood (M = .796, SD = .463) generated a higher percentage of item-specific thoughts than participants in a positive mood (M = .684, SD = .322). And the main effect of ad appeal on the item-specific response pattern was also significant (F[1,97] = 4.048, p = .047, η_p^2 = .040). Participants who read the functional ad (M = .769, SD = .428) generated a slightly higher percentage of item-specific thoughts than participants who read the experiential ad (M = .702, SD = .361). The interaction effect of mood and ad appeal was not significant (F[1,97] = .153, p = .697, η_p^2 = .002). See Figure 2 for the visualized illustration of the non-significant interaction effect.

To test the interaction between mood, culture, and ad congruity on information processing, a three-way ANCOVA for item-specific thoughts on the ad was conducted. The results showed that the main effect of culture was significant, F[1,197] = 11.036, p = .001, η_p^2 = .053. Chinese participants (M = .733, SD = .397) had more item-specific thoughts on the ad than American participants (M = .548, SD = .377). The main effect of mood was also significant, F[1,197] = 6.495, p = .012, η_p^2 = .032. Participants in a negative mood (M = .724, SD = .416) had more item-specific thoughts than participants in a positive mood (M = .569, SD = .367). More interestingly, the interaction of mood and ad congruity was also significant, F[1,197] = 5.643, p = .018, η_p^2 = .028. For those who read the congruent ad, participants in a negative mood (M = .788, SD = .408) had more item-specific thoughts than participants in a positive mood (M = .520, SD = .379); For those who read the incongruent ad, participants in a negative mood (M

= .638, *SD* = .416) had similar percent of analytic thoughts to participants in a positive mood (*M* = .674, *SD* = .321). Another three-way ANCOVA for item-specific thoughts on the product only showed that the main effect of culture was significant, $F[1,193] = 16.131$, $p < .001$, $\eta_p^2 = .077$.

Overall, the coding results have indicated that American participants in a positive mood generated more relational thoughts, whereas American participants in a negative mood generated more item-specific thoughts. However, Chinese participants' information processing style were influenced by both the mood manipulation and the ad appeal manipulation. More specifically, Chinese participants in a negative mood had a higher percentage of item-specific thoughts than Chinese participants in a positive mood (i.e., the main effect of mood on processing style). This conclusion holds true for the evaluations of the product but not for the evaluations of the advertisement. Chinese participants in a negative mood who read the functional ad had a significantly higher percentage of item-specific thoughts about the ad than those who read the functional ad in a positive mood. Participants who read the experiential ad did not yield a significant simple main effect of mood (i.e., the interaction of mood and ad congruity on processing style). Chinese participants had more item-specific thoughts on both the ad and the product than American participants, which indicated that Chinese participants had a more item-specific processing style. Overall, participants in a negative mood had more item-specific thoughts than participants in a positive mood, which indicated that negative mood states tended to trigger a more item-specific processing compared to positive mood states. The interaction of mood and ad congruity showed that different types of message appeals could also impact participants' information processing.

7.3. Interaction Effect of Mood and Culture on Cognitive Thinking Style

A two-way MANCOVA for the overall cognitive thinking (AHS) and two sub-scales for cognitive thinking style (i.e., attitudes toward contradiction and locus of attentions) by mood and culture conditions after controlling the level of arousal was conducted. The results of interaction effect of mood and culture on the overall cognitive thinking was not significant (F[1,209] = .71, p = .401, η_p^2 = .003). Similar non-significant interaction effects were found for two sub-scales of the AHS: attitudes toward contradiction (F[1,209] = 1.817, p = .179, η_p^2 = .009) and locus of attentions (F[1,209] = .001, p = .973, η_p^2 = .000). The main effects of mood on the overall cognitive thinking style and the sub-scales of the AHS were not significant (for the AHS: F[1,209] = .747, p = .388, η_p^2 = .004; for the attitudes toward the contradiction: F[1,209] = .231, p = .631, η_p^2 = .001; for the locus of attentions: F[1,209] = .799, p = .373, η_p^2 = .004). The main effect of culture on the overall cognitive thinking style and the sub-scales of the AHS were not significant (for the AHS: F[1,209] = .211, p = .647, η_p^2 = .001; for the attitudes toward the contradiction: F[1,209] = .231, p = .631, η_p^2 = .001; for the locus of attentions: F[1,209] = .163, p = .687, η_p^2 = .001). In the meantime, there was no significant effect of the covariate (arousal) on any of the dependent variables (for the AHS: F[1,209] = .027, p = .87, η_p^2 = .000; for the attitudes toward the contradiction: F[1,209] = .026, p = .872, η_p^2 = .000; for the locus of attention: F[1,209] = .01, p = .922, η_p^2 = .000).

7.4. Hypotheses Testing

7.4.1. Interaction between Ad Congruity and Mood on Attitudes and Purchasing Intentions

A two-way ANCOVA for attitudes by ad and mood conditions after controlling the level of arousal was conducted. The results showed that the interaction effect of ad congruity and mood on attitudes toward the ad was marginally significant, F[1,209] = 3.733, p = .055, η_p^2

= .018. The main effect of mood on attitudes was not significant, $F[1,209] = .037$, $p = .847$, $\eta_p^2 = .000$. The main effect of ad congruity on attitudes was also not significant, $F[1,209] = 1.279$, $p = .259$, $\eta_p^2 = .006$. The results of another two-way ANCOVA showed that the interaction effect of ad congruity and mood on purchasing intentions was not significant, $F[1,209] = 1.6$, $p = .207$, $\eta_p^2 = .008$. The ad congruity had a significant main effect on purchasing intentions, $F[1,209] = 5.793$, $p = .017$, $\eta_p^2 = .027$. Overall, participants had higher purchasing intentions after they read the congruent ad ($M = 4.482$, $SD = 1.515$) than the incongruent ad ($M = 3.934$, $SD = 1.816$). The main effect of mood on purchasing intentions was not significant, $F[1,209] = .023$, $p = .88$, $\eta_p^2 = .000$.

To further test the interaction of mood and type of ad congruity, two one-way ANCOVAs for attitudes by ad condition after splitting the file by mood conditions and controlling arousal was conducted. The results showed that participants who were in a negative mood had significantly more positive attitudes toward the congruent/functional ad ($M = 5.156$, $SD = 1.309$) than the incongruent/experiential ad ($M = 4.504$, $SD = 1.818$), $F[1,102] = 4.387$, $p = .039$, $\eta_p^2 = .041$. Participants who were in a positive mood did not have the significant preference to either ad, $F[1,106] = .262$, $p = .61$, $\eta_p^2 = .002$, $M_{con} = 4.778$, $SD_{con} = 1.487$; $\underline{M}_{incon} = 4.946$, $SD_{incon} = 1.397$. The results of other two one-way ANCOVAs showed that the simple main effect of ad congruity on purchasing intentions was not significant when participants were in a positive mood ($F[1,106] = .767$, $p = .383$, $\eta_p^2 = .007$), but was significant when participants were in a negative mood ($F[1,102] = 6.547$, $p = .012$, $\eta_p^2 = .060$). Participants in a negative mood preferred the congruent ad ($M = 4.674$, $SD = 1.353$) to the incongruent ad ($M = 3.822$, $SD = 1.920$) in terms of purchasing intentions, whereas participants in a positive mood did not prefer either the congruent ad ($M = 4.344$, $SD = 4.080$) or the incongruent ad ($M = 4.080$, $SD = 1.679$).

7.4.2. Interaction of Ad Congruity and Culture on Attitudes and Purchasing Intentions

A two-way ANOVA for attitudes by ad and culture conditions was conducted. The results showed that there was a significant main effect of different cultural conditions on participants' attitudes toward the ad, $F[1,210] = 22.86$, $p < .001$, $\eta_p^2 = .098$. Chinese participants' attitudes toward ad ($M = 4.336$, $SD = 1.198$) were less positive than American participants ($M = 5.297$, $SD = 1.699$) regardless of ad conditions. The main effect of ad congruity on attitudes was not significant, $F[1,210] = 1.418$, $p = .235$, $\eta_p^2 = .007$. The interaction of ad congruity and culture was also not significant, $F[1,210] = 0.349$, $p = .555$, $\eta_p^2 = .002$. A similar two-way ANOVA (purchasing intentions as the dependent variable) showed that there was a significant main effect of culture on purchasing intentions, $F[1,210] = 19.299$, $p < .001$, $\eta_p^2 = .084$. Chinese participants' purchasing intentions ($M = 3.729$, $SD = 1.428$) were lower than American participants ($M = 4.692$, $SD = 1.796$). The main effect of ad congruity was also significant, $F[1,210] = 6.225$, $p = .013$, $\eta_p^2 = .029$. Participants who read the congruent/functional ad ($M = 4.482$, $SD = 1.515$) had higher purchasing intentions than those who read the incongruent/experiential ad ($M = 3.934$, $SD = 1.816$). The interaction effect of culture and ad congruity was not significant, $F[1,210] = .462$, $p = .497$, $\eta_p^2 = .002$.

Though the interaction of culture and ad congruity was significant, the results of simple main effect of ad congruity in different cultural conditions were interesting. One-way ANOVAs for attitudes/purchasing intentions by ad condition after splitting the file by culture conditions and controlling arousal was conducted. The results showed that American participants had relatively similar levels of attitudes ($F[1,105] = .134$, $p = .715$, $\eta_p^2 = .001$) and purchasing intentions ($F[1,105] = 1.32$, $p = .253$, $\eta_p^2 = .012$) in different ad conditions; Chinese participants

also had similar levels of attitudes (F[1,105] = 2.426, p = .122, η_p^2 = .023), but significantly different levels of purchasing intentions (F[1,105] = 6.707, p = .011, η_p^2 = .060) in different ad conditions. Chinese participants had higher purchasing intentions after reading the congruent ad (M = 4.074, SD = 1.286) than the incongruent ad (M = 3.377, SD = 1.491).

7.4.3. Three-way Interaction between Ad Congruity, Mood, and Culture on Attitudes and Purchasing Intentions

A three-way ANCOVA analysis after controlling the level of arousal was conducted the results showed that the three-way interaction effect of culture, ad congruity and mood on attitudes toward the ad was not significant, F[1,205] = .343, p = .559, η_p^2 = .002. The interaction of mood and ad congruity on attitudes was significant, F[1,205] = 5.191, p = .024, η_p^2 = .025. The main effect of culture on attitudes was significant, F[1,205] = 24.825, p < .000, η_p^2 = .108. See Figure 3 for the interaction of ad congruity and culture on attitudes in different mood states. And the three-way interaction effect on purchasing intentions was also not significant, F[1,205] = .127, p = .722, η_p^2 = .001. The main effect of ad congruity on purchasing intentions was significant, F[1,205] = 6.529, p = .011, η_p^2 = .031. The main effect of culture on purchasing intentions was also significant, F[1,205] = 19.248, p = .000, η_p^2 = .086. See Figure 4 for the interaction of ad congruity and culture on purchasing intentions in different mood states.

Though the interaction of culture and ad congruity was significant, the results of simple main effect of ad congruity in different mood and culture conditions were noteworthy. Results of several one-way ANCOVAs showed that American participants in a negative mood did prefer the congruent ad ($M_{attitudes}$ = 5.772, $SD_{attitudes}$ = 1.225; $M_{intentions}$ = 5.203, $SD_{intentions}$ = 1.313) to the incongruent ad ($M_{attitudes}$ = 5.068, $SD_{attitudes}$ = 2.039; $M_{intentions}$ = 4.495, $SD_{intentions}$ = 2.040) in terms of attitudes toward the ad and purchasing intentions, but the differences were not

significant (for attitudes, $F[1,53] = 2.521$, $p = .118$, $\eta_p^2 = .045$; for purchasing intentions: $F[1,53] = 2.228$, $p = .141$, $\eta_p^2 = .040$). American participants in a positive mood did not prefer either the congruent ad or the incongruent ad (for attitudes, $F[1,48] = .850$, $p = .361$, $\eta_p^2 = .017$; for purchasing intentions, $F[1,48] = .155$, $p = .696$, $\eta_p^2 = .003$). Chinese participants in a positive mood had similar levels of purchasing intentions for the congruent ad ($M = 4.042$, $SD = 1.370$) and the incongruent ad ($M = 3.769$, $SD = 1.505$), $F[1,55] = .553$, $p = .460$, $\eta_p^2 = .010$. Chinese participants in a positive mood also had similar levels of attitudes toward the congruent ad ($M = 4.516$, $SD = 1.221$) and the incongruent ad ($M = 4.510$, $SD = 1.143$), $F[1,55] = .011$, $p = .916$, $\eta_p^2 = .000$. Chinese participants in a negative mood preferred the congruent ad to the incongruent ad: they had more positive attitudes toward the congruent ad ($M = 4.511$, $SD = 1.081$) compared to the incongruent ad ($M = 3.815$, $SD = 1.220$), $F[1,55] = 4.37$, $p = .042$, $\eta_p^2 = .085$. Chinese participants in a negative mood also had higher purchasing intentions after they read the congruent ad ($M = 4.121$, $SD = 1.184$) compared to the incongruent ad ($M = 3.000$, $SD = 1.402$), $F[1,55] = 8.89$, $p = .005$, $\eta_p^2 = .085$.

7.5 Additional Findings

The differences in cultural orientation between two cultural groups were tested. The Horizontal and Vertical Individualism and Collectivism Scale included four cultural orientations: horizontal individualistic, vertical individualistic, horizontal collectivistic, and vertical collectivistic. Horizontal orientation emphasizes equality, whereas vertical orientation emphasizes hierarchy (Singelis et al. 1995). One-way ANOVAs were conducted by using the means of the four cultural orientations as the dependent variable respectively and the cultural conditions as the independent variable. The results showed that only the mean values of vertical

individualism were significantly different in two cultural group, $F[1,212] = 36.541$, $p < .001$, $\eta_p^2 = .147$. Chinese participants ($M = 5.209$, $SD = .916$) had a higher mean value of vertical individualism than American participants ($M = 4.237$, $SD = 1.388$). This was partly due to the age difference in two cultural groups: The mean age of American participants is 34.30 and the mean age of Chinese participants is 22.99. An one-way ANCOVA using age as a covariate was conducted and the results showed that the difference of vertical individualism between two cultural groups was still significant, $F[1,211] = 8.293$, $p = .004$ $\eta_p^2 = .038$. And age was a significant predictor of the values of vertical individualism, $F[1,211] = 8$, $p = .001$, $\eta_p^2 = .055$, and the values of horizontal collectivism, $F[1,211] = 3.962$, $p = .048$, $\eta_p^2 = .018$.

CHAPTER 8: STUDY 2 DISCUSSION

The Study 2 replicated the findings of Study 1 by using a different product category (i.e., a printer – a relatively high utilitarian product). In the meantime, a more comprehensive set of measures of cognitive thinking style (i.e., relational vs. item processing elaborations) were used in Study 2. Overall, the coding results of cognitive responses (i.e., thought listing) showed some interesting findings. First, Chinese participants had more item-specific thoughts than American participants. Second, participants in a negative mood had more item-specific thoughts than participants in a positive mood. Third, the simple main effect of mood was only significant when participants read the congruent ad that contained functional appeals. In addition, American participants in a positive mood had more relational thoughts than item-specific thoughts. American participants in a negative mood generated more item-specific thoughts than relational thoughts. Also, American participants in a positive mood had more relational thoughts and less item-specific thoughts than American participants in a negative mood. Second, the results indicated that Chinese participants' information processing styles were also influenced by both the mood and the ad message appeal. Chinese participants in a negative mood had more item-specific thoughts and fewer relational thoughts than Chinese participants in a positive mood (i.e., the main effect of mood on processing style). The results also showed that Chinese participants in a negative mood who read the functional ad generated more item-specific thoughts about the ad than Chinese who read the functional ad in a positive mood, whereas Chinese participants who read the experiential ad did not find this significant mood difference. These findings are consistent with previous study. For example, Wen et al. (2017) found that ads with emotional appeals would trigger more relational thoughts because emotional appeals retrieve people's episodic memory (i.e., memory related to the self and events from one's own life), whereas ads

with functional appeals would trigger more item-specific thoughts because functional appeals retrieve people's semantic memory (i.e., a fact-based knowledge about the attribute and benefits of certain objects).

The measures of cultural orientations indicate an unexpected cultural difference: Chinese participants was higher in vertical individualism (i.e., seeing the self as fully autonomous, but recognizing that inequality will exist among individuals and that accepting this inequality; (Singelis et al. 1995) than American participants after controlling the age difference. All the other three dimensions did not yield significant differences. This might explain the null result of the two-way interaction of culture and ad congruity. Does the cultural difference exist in the paradigm of individualism-collectivism? The non-significant main effect of culture on thinking style raises another question: Do people in different cultures really have different cognitive styles in the paradigm of holistic-analytic? Since Nisbett and his colleagues (2001) established the realm of culture and system of thoughts almost 17 years ago, are the conclusions still valid today or has the globalization made people from different cultures more homogeneous in cognitive thinking?

The interaction effects of ad congruity and mood on attitudes was significant, which further confirms the affect-as-information theory. The interaction effects of ad congruity and culture on attitudes and purchasing intentions were not significant. However, the main effect of culture on attitudes and purchasing intentions was significant and the main effect of ad congruity on purchasing intentions was significant: American participants overall had more positive attitudes and higher purchasing intentions than Chinese participants. Participants who read the congruent ad overall had higher purchasing intentions than those who read the incongruent ad. Since the pretest of the ad stimuli can rule out the potential confounding variables such as

personal relevancy, ad credibility, relevancy, and persuasiveness, the unexpected cultural effects might be due to the differences in sampling characteristics between Americans and Chinese participants, which will be elaborated in details in the general discussion section.

The three-way interaction of mood, culture, and ad congruity was not significant. However, Chinese participants in a negative mood preferred the congruent ad to the incongruent ad, whereas Chinese participants in a positive mood and American participants in both mood states did not have significant ad preferences.

CHAPTER 9: GENERAL DISCUSSION

9.1. Summary of the Study

Overall, this thesis research is to examine the effects of mood states, cultural background, and the (in)congruity between ad appeal and product type on consumers' attitudes and purchasing intentions. Two online experiments were conducted with a two (mood: positive, negative) by two (culture: American, Chinese) by two (ad congruity: congruent, incongruent) between-subject design and yielded several interesting results. By using different product categories and ad stimuli (greeting card ads in the Study 1; household printer ads in the Study 2) in two experiments, the author finds that first, participants in general preferred the congruent ad to the incongruent ad in both Study 1 and Study 2. Study 2 showed that American participants had more positive persuasion outcomes than Chinese participants. There are several reasons that might contribute to this cultural difference: first, different language versions make translation and nuance language difference potential confounds, even though the translation was carefully scrutinized and back-translated. Second, the American samples were Amazon Mturk workers, whereas the Chinese samples were either undergraduate or graduate students recruited from a top-ranked Chinese University. These two cultural groups had differences in age, gender ratio, educational background and other demographics. Participants who are younger and have received high-level of education might be more critical about the ads when processing them, and they are more difficult to persuade. By categorizing participants' open-ended responses to positive, negative, or neutral in the Study 2, the author could find way more negative evaluations among Chinese participants compared to American participants. They mainly criticized that the design and layout of the ad stimuli were not elegant and trendy and the content was not concise.

Many of them mentioned that since they lived in the dormitory and there were many printing shops on the campus, they did not have the strong need of purchasing a household printer.

Besides, the two-way interaction of mood and congruity on attitudes was confirmed by Study 2. The analyses of the simple main effects of ad congruity on different mood states showed that people in a negative mood preferred the congruent ad to the incongruent ad because they tend to process information more systematically and carefully, which leads to scrutinizing the details of the information and lesser tolerance to incongruent ad. In the meantime, people in a positive mood did not have preference for either ad because they tend to process information more holistically (i.e., by drawing relations and noticing commonality), so that they would be more tolerant of incongruent information. The two-way interaction of culture and ad congruity on attitudes was significant in the Study 1. The analyses of the simple main effects of ad congruity on different cultural groups showed that Chinese participants preferred the congruent ad to the incongruent ad, whereas American participants did not have a specific preference. The three-way interaction of mood, culture and ad congruity was not significant in both studies.

The measuring scale of thinking style used in both studies were Analysis-Holism Scale (AHS) and it successfully captured the cultural difference in thinking style in the Study 1 but not in the Study 2. The main effect of mood and the interaction effect of mood and ad congruity on the AHS values were not significant. Study 1 and 2 both indicates that the AHS could not capture the effects of mood on thinking style, instead, this effect is found by coding the open-ended cognitive responses, which is in alignment of previous studies of mood impact on information processing (e.g., Sar, Nan, and Myers 2010). The comparison between open-ended cognitive responses and existing scales (e.g., AHS) that measure cognitive thinking style/information processing style indicates that when the information processing style is triggered/partly triggered,

using the open-ended cognitive responses might be able to capture more accurate and specific differences in thinking styles between different conditions. Through the coding analysis of the thought-listing responses in Study 2, the significant interaction effect of mood and ad congruity on thinking style was noteworthy: for those who read the congruent ad (i.e., ad that contains functional messages), participants in a negative mood had more analytic thoughts than participants in a positive mood, whereas for those who read the incongruent ad (i.e., ad that contains emotional messages), participants in a negative mood had similar percent of analytic thoughts to participants in a positive mood. This result indicates that different message appeals could also influence people's information processing style other than mood states and cultural backgrounds.

9.2. Implications of the Findings

This study contributes to advertising theory and practice in several ways. Theoretically, this study adds some support for the theory of affect-as-information and cultural differences in thinking styles by examining how people from different cultures and in different mood states process (in)congruent ad information. The study also provides some empirical evidence on how mood and culture interact to influence cognitive thinking styles. Practically, this study can help advertising practitioners on how to globally create effective advertising campaigns. By focusing on the influence of consumers' mood and cultural background on their evaluation of ads, this study provides guidelines for using an appropriate level of incongruent information in ads for different cultural or affective groups to reach optimized outcomes. For example, advertisers need to be cautious about launching "novel" advertisements that can potentially cause perceived incongruity among the Generation Y (18-32 years old) in China and avoid pushing these ads to

people in a negative mood. International advertisers also need to be careful in localizing the ad ideas and translating the ad copy.

9.3. Limitations and Future Research

The current study only measured the persuasion outcomes without taking the recognition of the incongruity between ad appeals and product types into consideration. It will be interesting to see whether people who have a more analytic thinking style can actually better recognize the incongruity than people who have a holistic thinking style. And it would also be interesting to replicate the study by using multiple messages design and examine how mood and culture moderate the effect of ad (in)congruity on memory of ad copy and brand related information. It is possible that participants could better recall the incongruent ad messages based on past studies (e.g., Baumann and Kuhl 2005) even though participants did not have more positive attitudes toward the incongruent ads in general.

The mean age of Chinese participant is younger than the mean age of American participants in both studies. Even though we did not find significant age difference for all dependent variables, it would have been a more robust experimental design if the research had controlled ages in different cultural groups. People in different age groups might have different perceptions of the same product: for example, younger people might use printers for increasing their working efficiency, whereas older people might use printers mainly for printing out family photos. Thus, for younger people, printers are more utilitarian, but for older people, printers are more hedonic. In the meantime, due to the sampling difference, Chinese participants were more homogeneous (most were college students) compared to American participants who are Amazon Mturk workers (more like a national sample). There might be differences in educational

background as well, which was not measured in both studies. Since people with a higher educational background usually tend to have a higher level of ad skepticism and they are more difficult to be persuaded (Obermiller and Spangenberg 2008). Therefore, the differences in demographics might threaten the generalizability of the results.

Another limitation of this study was not having a control group (those in the neutral mood). It is difficult to decipher the degree to which negative mood leads to a greater item-specific processing style compared to positive mood, or whether the results can be simply attributed to the effects of a positive mood state. Also, compared to lab experiments, online experiment is lack of experimental control, which might deteriorate the data quality and the final result because participants did not pay much attention to filling out online questionnaires. Last, the translated Chinese version of the questionnaire and stimuli for Chinese participants might attenuate the validity of measures even though two versions (English and Chinese) of measures and ad stimuli were carefully compared to be as identical as possible in meanings.

Moreover, it would be worthwhile to replicate the study by using other products (e.g., a both utilitarian and hedonic product, such as yoghurt) or recruiting both Western and Eastern participants who have similar demographic characteristics from other countries in order to increase the generalizability of the findings. In addition, need for affect as a moderator might influence individuals' perception of their mood state and the effects of mood, which is also worthy of studying in the future.

REFERENCES

Aaker, Jennifer L. and Jaideep Sengupta (2000), "Additivity versus Attenuation: The Role of Culture in the Resolution of Information Incongruity," *Journal of Consumer Psychology*, Cultural Psychology, 9 (2), 67–82.

Bagozzi, Richard P., Nancy Wong, and Youjae Yi (1999), "The Role of Culture and Gender in the Relationship between Positive and Negative Affect," *Cognition and Emotion*, 13 (6), 641–72.

Baumann, Nicola and Julius Kuhl (2005), "Positive Affect and Flexibility: Overcoming the Precedence of Global over Local Processing of Visual Information," *Motivation and Emotion*, 29 (2), 123–34.

Bless, Herbert, Gerald L. Clore, Norbert Schwarz, Verena Golisano, Christina Rabe, and Marcus Wölk (1996), "Mood and the Use of Scripts: Does A Happy Mood Really Lead to Mindlessness?" *Journal of Personality and Social Psychology*, 71 (4), 665–79.

Braun-LaTour, Kathryn A., Nancy M. Puccinelli, and Fred W. Mast (2007), "Mood, Information Congruency, and Overload," *Journal of Business Research*, 60 (11), 1109–16.

Chang, Chingching (2004), "How Mood and Ad-Self-Congruency Affect the Relative Influence of Hedonic Ad Appeals and Utilitarian Ad Appeals on Product Evaluations," *NA - Advances in Consumer Research Volume 31*.

Cheong, Yunjae and Kihan Kim (2011), "The Interplay between Advertising Claims and Product Categories in Food Advertising: A Schema Congruity Perspective," *Journal of Applied Communication Research*, 39 (1), 55–74.

Choi, Incheol, Minkyung Koo, and Jong An Choi (2007), "Individual Differences in Analytic versus Holistic Thinking," *Personality and Social Psychology Bulletin*, 33 (5), 691–705.

Clore, Gerald L., Karen Gasper, and Erika Garvin (2001), "Affect as Information," in *Handbook of affect and social cognition*, Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers, 121–44.

Drolet, Aimee and Jennifer Aaker (2002), "Off-target? Changing Cognitive-based Attitudes," *Journal of Consumer Psychology*, 12 (1), 59–68.

———, Patti Williams, and Loraine Lau-Gesk (2007), "Age-Related Differences in Responses to Affective vs. Rational Ads for Hedonic vs. Utilitarian Products," *Marketing Letters*, 18 (4), 211–21.

Einstein, Gilles O. and Mark. A. McDaniel (1990), "Normal Aging and Prospective Memory," *Journal of experimental psychology. Learning, memory, and cognition*, 16 (4), 717–26.

Ellis, Henry C. and Patricia W. Ashbrook (1989), "The 'State' of Mood and Memory Research: A Selective Review," *Journal of Social Behavior & Personality*, 4 (2), 1–21.

———, Roger L. Thomas, and Isabel A. Rodriguez (1984), "Emotional Mood States and Memory: Elaboration Encoding, Semantics Processing, and Cognitive Effort," *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 10 (3), 470–82.

Forgas, Joseph P. (1995), "Mood and Judgment: The Affect Infusion Model," *Psychological Bulletin*, 117 (1), 39–66.

Geuens, Maggie, Patrick De Pelsmacker, and Tine Faseur (2011), "Emotional Advertising: Revisiting the Role of Product Category," *Journal of Business Research*, 64 (4), 418–26.

Gilbert, Daniel T. and S. Malone Patrick (1995), "The Correspondence Bias.," *Psychological bulletin*, 117 (1), 21–38.

Gorn, Gerald, Michel Tuan Pham, and Leo Yatming Sin (2001), "When Arousal Influences Ad Evaluation and Valence Does Not (and Vice Versa)," *Journal of Consumer Psychology*, 11 (1), 43–55.

Heckler, Susan E. and Terry L. Childers (1992), "The Role of Expectancy and Relevancy in Memory for Verbal and Visual Information: What is Incongruency?" *Journal of Consumer Research*, 18 (4), 475–92.

Huber, Frank, Suzanne C. Beckmann, and Andreas Herrmann (2004), "Means–end Analysis: Does the Affective State Influence Information Processing Style?" *Psychology and Marketing*, 21 (9), 715–37.

Hunt, R. Reed and Gilles O. Einstein (1981), "Relational and Item-Specific Information in Memory," *Journal of Verbal Learning and Verbal Behavior*, 20 (5), 497–514.

——— and Catherine E. Seta (1984), "Category Size Effects in Recall: The Roles of Relational and Individual Item Information," *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 10 (3), 454–64.

Isen, Alice M. (2001), "An Influence of Positive Affect on Decision Making In Complex Situations: Theoretical Issues with Practical Implications," *Journal of Consumer Psychology*, 11 (2), 75–85.

Johar, J. S. and M. Joseph Sirgy (1991), "Value-Expressive versus Utilitarian Advertising Appeals: When and Why to Use Which Appeal," *Journal of Advertising*, 20 (3), 23–33.

Khan, Uzma and Ravi Dhar (2010), "Price-Framing Effects on the Purchase of Hedonic and Utilitarian Bundles," *Journal of Marketing Research*, 47 (6), 1090–99.

Kim, Sungeun (Ange) and Jungkeun Kim (2016), "The Influence of Hedonic versus Utilitarian Consumption Situations on the Compromise Effect," *Marketing Letters*, 27 (2), 387–401.

Kirkpatrick, David (2016), "Snickers is Betting on Mood Behavior Data for Targeted Marketing," *Marketing Dive*, (accessed October 9, 2017), [available at http://www.marketingdive.com/news/snickers-is-betting-on-mood-behavior-data-for-targeted-marketing/411669/].

Lee, Angela Y. and Brian Sternthal (1999), "The Effects of Positive Mood on Memory,"

Mandler, George (1982), *The Structure Of Value: Accounting For Taste*, San Diego, CA: Center for Human Information Processing.

Masuda, Takahiko and Richard E. Nisbett (2001), "Attending Holistically versus Analytically: Comparing the Context Sensitivity of Japanese and Americans," *Journal of Personality and Social Psychology*, 81 (5), 922–34.

McStay (2015), "Empathic Media: Advertising that Tracks Your Mood," *Sparksheet*, (accessed April 7, 2017), [available at http://sparksheet.com/empathetic-media-advertising-that-tracks-your-mood/].

Meyers-Levy, Joan (1991), "Elaborating on Elaboration: The Distinction between Relational and Item-Specific Elaboration," *Journal of Consumer Research*, 18 (3), 358–67.

——— and Alice M. Tybout (1989), "Schema Congruity as A Basis for Product Evaluation," *Journal of Consumer Research*, 16 (1), 39–54.

Michon, Richard, Jean-Charles Chebat, and L. W. Turley (2005), "Mall Atmospherics: The Interaction Effects of the Mall Environment on Shopping Behavior," *Journal of Business Research*, Special Section on the 2002 SMA Retail Symposium, 58 (5), 576–83.

Muehling, Darrel D. (1987), "An Investigation of Factors Underlying Attitude-Toward-Advertising-in-General," *Journal of Advertising*, 16 (1), 32–40.

Nisbett, Richard E. and Takahiko Masuda (2003), "Culture and Point of View," *Proceedings of the National Academy of Sciences*, 100 (19), 11163–70.

——— and Yuri Miyamoto (2005), "The Influence of Culture: Holistic versus Analytic Perception," *Trends in Cognitive Sciences*, 9 (10), 467–73.

———, Kaiping Peng, Incheol Choi, and Ara Norenzayan (2001), "Culture and Systems of Thought: Holistic versus Analytic Cognition," *Psychological Review*, 108 (2), 291–310.

Norenzayan, Ara, lncheol Choi, and Richard E. Nisbett (1999), "Eastern and Western Perceptions of Causality for Social Behavior: Lay Theories about Personalities and Situations," in *Cultural divides: Understanding and overcoming group conflict*, New York, NY: US: Russell Sage Foundation, 239–72.

Obermiller, Carl and Eric R. Spangenberg (2008), "Development of A Scale to Measure Consumer Skepticism toward Advertising," *Journal of Consumer Psychology*, 7 (2), 159–86.

Peng, Kaiping and Richard E. Nisbett (1999), "Culture, Dialectics, and Reasoning about Contradiction," *American Psychologist*, 54 (9), 741–54.

Peterson, Tim (2015), "Spotify to Use Playlists as Proxy for Targeting Ads to Activities, Moods," (accessed April 7, 2017), [available at http://adage.com/article/digital/spotify-playlists-gauge-moods-ad-targeting/298066/].

Rossiter, John R. and Larry Percy (1980), "Attitude Change through Visual Imagery in Advertising," *Journal of Advertising*, 9 (2), 10–16.

Samuelsen, Bendik Meling and Lars Erling Olsen (2010), "Promising Attributes and Experiences," *Journal of Advertising*, 39 (2), 65–78.

Sar, Sela and Brittany Duff (2011), "Exploring the Effects of Mood and Culture on Cognitive Thinking Styles," St. Louis, MO.

———, Xiaoli Nan, and Jun Rong Myers (2010), "The Effects of Mood and Advertising Context on Ad Memory and Evaluations: The Case of A Competitive and A Non-Competitive Ad Context," *Journal of Current Issues & Research in Advertising*, 32 (2), 1–9.

Schwarz, Norbert (1990), "Feelings as Information: Informational and Motivational Functions of Affective States," in *Handbook of motivation and cognition: Foundations of social behavior, Vol. 2*, E. T. Higgins and R. M. Sorrentino, eds., New York, NY, US: Guilford Press, 527–61.

——— and Gerald L. Clore (1983), "Mood, Misattribution, and Judgments of Well-Being: Informative and Directive Functions of Affective States," *Journal of Personality and Social Psychology*, 45 (3), 513–23.

Shavitt, Sharon, Ashok K. Lalwani, Jing Zhang, and Carlos J. Torelli (2006), "The Horizontal/Vertical Distinction in Cross-Cultural Consumer Research," *Journal of Consumer Psychology*, 16 (4), 325–42.

Shotton, Richard (2016), "Mood Advertising: A New Opportunity For Brands | IAB UK," (accessed April 7, 2017), [available at https://iabuk.net/blog/mood-advertising-a-new-opportunity-for-brands].

Singelis, Theodore M., Harry C. Triandis, Dharm P. S. Bhawuk, and Michele J. Gelfand (1995), "Horizontal and Vertical Dimensions of Individualism and Collectivism: A Theoretical and Measurement Refinement," *Cross-Cultural Research*, 29 (3), 240–75.

Stayman, Douglas M., Dana L. Alden, and Karen H. Smith (1992), "Some Effects of Schematic Processing on Consumer Expectations and Disconfirmation Judgments," *Journal of Consumer Research*, 19 (2), 240–55.

Storbeck, Justin and Gerald L. Clore (2005), "With Sadness Comes Accuracy; with Happiness, False Memory: Mood and the False Memory Effect," *Psychological Science*, 16 (10), 785–91.

Tice, Dianne M., Ellen Bratslavsky, and Roy F. Baumeister (2001), "Emotional Distress Regulation Takes Precedence over Impulse Control: If You Feel Bad, Do It!," *Journal of Personality and Social Psychology*, 80 (1), 53–67.

Uskul, Ayse K., David K. Sherman, and John Fitzgibbon (2009), "The Cultural Congruency Effect: Culture, Regulatory Focus, and The Effectiveness of Gain- Vs. Loss-Framed Health Messages," *Journal of Experimental Social Psychology*, 45 (3), 535–41.

Wen, Jing (Taylor), Sela Sar, and George Anghelcev (2017), "The Interaction Effects of Mood and Ad Appeals on Type of Elaboration and Advertising Effectiveness," *Journal of Current Issues & Research in Advertising*, 38 (1), 31–43.

TABLES

Table 1. Means and standard deviations of attitudes toward the ad and purchasing intentions in different mood (positive, negative), culture (American, Chinese), and ad congruity (incongruent, congruent) conditions in Study 1.

Variable		**Incongruent**		**Congruent**	
		Mean	SD	Mean	SD
Attitudes toward the ad					
American	Positive	5.219	1.334	5.164	1.411
	Negative	5.125	1.361	5.490	1.195
Chinese	Positive	5.164*	1.530	5.833*	1.079
	Negative	4.935**	1.157	5.827**	1.083
Purchasing intentions					
American	Positive	4.444	1.690	4.195	1.634
	Negative	4.278	1.677	4.590	1.399
Chinese	Positive	4.406	1.322	4.067	1.625
	Negative	3.877	1.427	4.231	1.352

Note:
* the means in the same row are significantly different from each other and $p < .05$;
** the means in the same row are significantly different from each other and $p < .01$.

Table 2. Means and standard deviations of attitudes toward the ad and purchasing intentions in different mood (positive, negative), culture (American, Chinese), and ad congruity (incongruent, congruent) conditions in Study 2.

Variable		**Incongruent**		**Congruent**	
		Mean	SD	Mean	SD
Attitudes toward the ad					
American	Positive	5.513	1.518	5.048	1.697
	Negative	5.068	2.039	5.772	1.225
Chinese	Positive	4.510	1.143	4.516	1.221
	Negative	3.815*	1.220	4.511*	1.081
Purchasing intentions					
American	Positive	4.483	1.843	4.656	1.808
	Negative	4.495	2.040	5.203	1.313
Chinese	Positive	3.769	1.505	4.042	1.370
	Negative	3.000**	1.402	4.121**	1.184

Note:
* the means in the same row are significantly different from each other and $p < .05$;
** the means in the same row are significantly different from each other and $p < .01$.

FIGURES

Figure 1. Interaction of mood (positive, negative) and ad congruity (incongruent, congruent) on Chinese participants' percentage of item-specific thoughts on the ad.

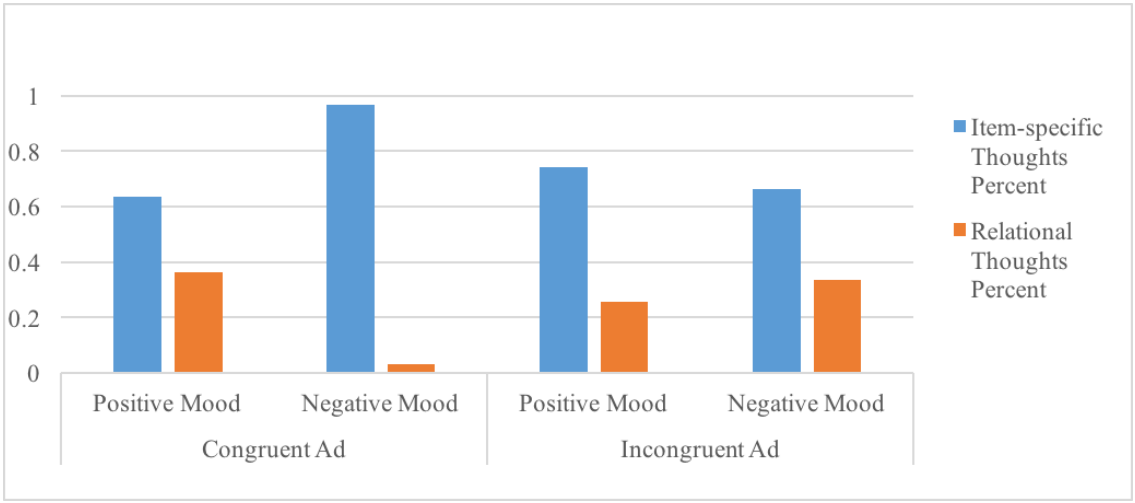


Figure 2. Interaction of mood (positive, negative) and ad congruity (incongruent, congruent) on Chinese participants' percentage of item-specific thoughts on the product.

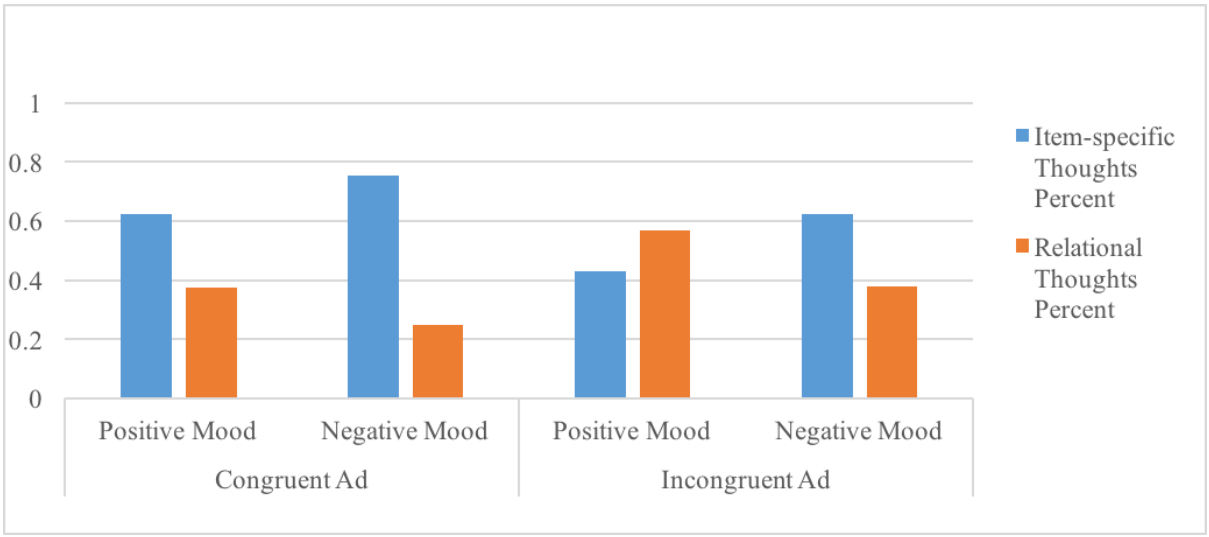


Figure 3. Interactive effects of culture (American, Chinese), mood (positive, negative), and ad congruity (incongruent, congruent) on attitudes toward the ad in Study 2.

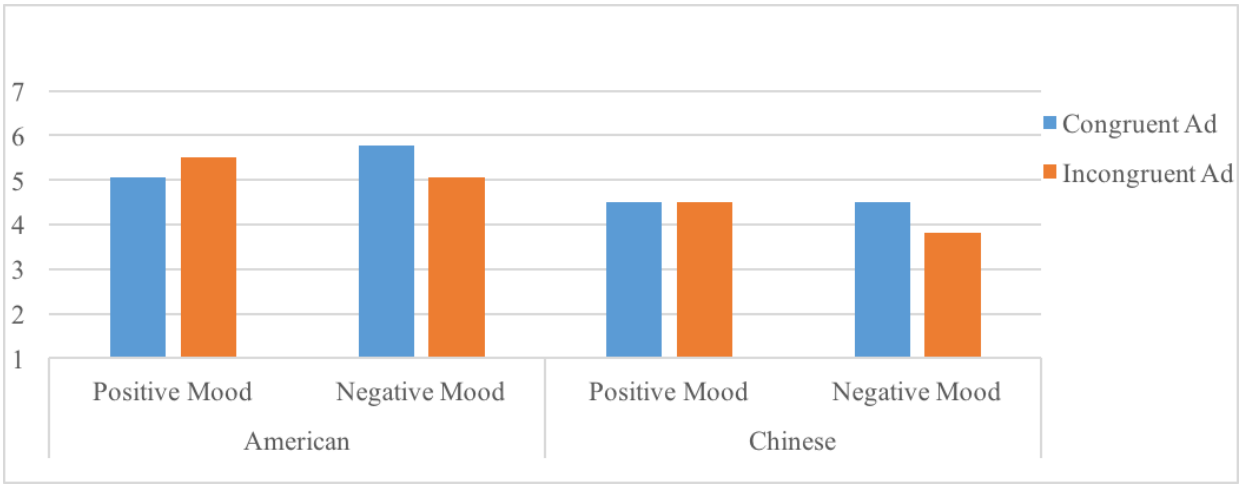
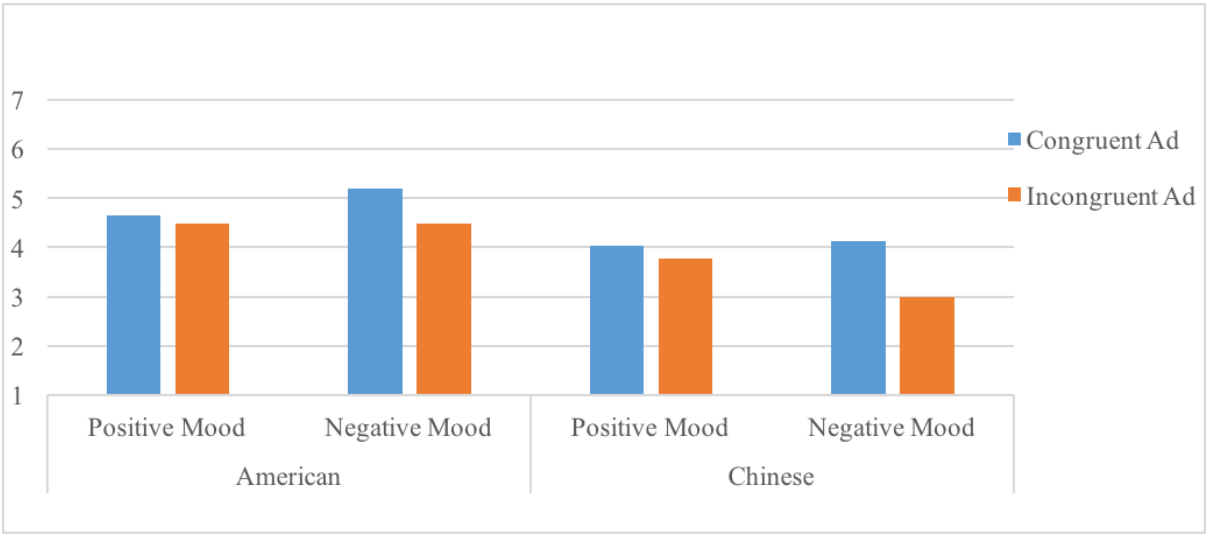


Figure 4. Interactive effects of culture (American, Chinese), mood (positive, negative), and ad congruity (incongruent, congruent) on purchasing intentions in Study 2.



APPENDIX A. QUESTIONNAIRE BEFORE AD EXPOSURE

Study 2 Questionnaire Before Exposure to the Advertisement
This questionnaire contains two independent studies.

First of all, we will develop life-event inventory and collect **your positive life events** for the first independent study.

Instructions: Please answer the following questions as truthfully as possible and provide as much detail as possible for each question. As you answer each question make sure that you try to make your answers as positive as possible so that the person who reads your answers will also feel positive just from reading your life event descriptions. You have 6-10 minutes to do this task.

1. Please briefly describe five events or situations that make you feel really GOOD. (You should spend at least two minutes for this question).

1)

2)

3)

4)

5)

2. Please describe in more details about <u>one of the events/situations</u> that you listed above (You should use at least <u>three minutes</u> for this question).

3. Please indicate how you were feeling when you were writing the essay about that moment in your life you identified in Question No. 2 (description about one of your life event) above.
Sad :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Happy

Bad :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Good

Gloomy :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Cheerful

Active :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Tranquil

Pleasant :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Unpleasant

Quiet :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Aroused

Still :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Stimulated

The data collection for the first independent study has finished. Now you are going to answer a series of questions for the second independent study. Please read the instructions very carefully.

4. Please rate each item on the scale ranging from 1 (Strongly disagree) to 7 (Strongly agree), 4 means "neither agree nor disagree".

It is more desirable to take the middle group than go to extremes.
Strongly disagree :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Strongly agree

When disagreement exists among people, they should search for ways to compromise and embrace everyone's opinions.
Strongly disagree :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Strongly agree

It is more important to find a point of compromise than to debate who is right/wrong, when one's opinions conflict with other's opinions.
Strongly disagree :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Strongly agree

It is desirable to be in harmony, rather than in discord, with others of different opinions than one's own.
Strongly disagree :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Strongly agree

The whole, rather than its parts, should be considered in order to understand a phenomenon.
Strongly disagree :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Strongly agree

It is more important to pay attention to the whole than its parts.
Strongly disagree :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Strongly agree

The whole is greater than the sum of its parts.
Strongly disagree :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Strongly agree

It is more important to pay attention to the whole context rather than the details.
Strongly disagree :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Strongly agree

6. For the following statements, please circle a number from 1 (strongly disagree) to 7 (strongly agree) that best describes your perception.

(1) I rely on myself most of the time; I rarely rely on others.
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

(2) I often do "my own thing."
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

(3) My personal identity, independent of others, is very important to me.
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

(4) It is important that I do my job better than others.
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

(5) Competition is the law of nature.
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

(6) When another person does better than I do, I get tense and aroused.
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

(7) The well-being of my coworkers is important to me.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

(8) To me, pleasure is spending time with others.
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

(9) I feel good when I cooperate with others.
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

(10) It is my duty to take care of my family, even when I have to sacrifice what I want.
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

(11) Family members should stick together, no matter what sacrifices are required.
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

(12) It is important to me that I respect the decisions made by my groups.
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

APPENDIX B. AD STIMULI

The Experimental Stimuli

In the Study 1, two greeting card advertisements were used as the stimuli.

Hedonic/Emotional Appeal:

Utilitarian/Functional Appeal:

In the Study 2, two household printer advertisements were used as the stimuli.

Hedonic/Emotional Appeal:

Utilitarian/Functional Appeal:


ZIJA
Zija's All-In-One Inkjet Printer
Provides Professional Colors That Won't Smudge
4800 x 1200 optimized DPI Resolution
Its Fast And High-Quality Performance
Increases Your Efficiency And Productivity:
A 30-Page Auto Document Feeder
Easily Handles Various Printing Jobs
Its Quick Start Up Will Get You Started
In 1 Second

APPENDIX C. QUESTIONNAIRE AFTER AD EXPOSURE

Study 2 Questionnaire After Exposure to the Advertisement

7. Please write down any of your thoughts and feelings about the advertisement you just saw. Please spend at least 1 minute writing down your answers.

8. Please write down any of your thoughts and feelings about the product in the advertisement. Please spend at least 1 minute writing down your answers.

9. Please circle a number that best describes your thoughts and feelings about the advertisement you just viewed.

"My evaluation of this ad is"

unfavorable:__1__:__2__:__3__:__4__:__5__:__6__:__7__: favorable

bad:__1__:__2__:__3__:__4__:__5__:__6__:__7__: good

dislike:__1__:__2__:__3__:__4__:__5__:__6__:__7__: like

negative:__1__:__2__:__3__:__4__:__5__:__6__:__7__: positive

If you plan to buy a postcard…

The likelihood of buying this product is:
It's unlikely:__1__:__2__:__3__:__4__:__5__:__6__:__7__:It's likely

The likelihood of trying this product is:
It's unlikely:__1__:__2__:__3__:__4__:__5__:__6__:__7__:It's likely

The likelihood of recommending this product to friends and relatives is:
It's unlikely:__1__:__2__:__3__:__4__:__5__:__6__:__7__:It's likely

10. Please indicate again how you were feeling when you were writing the essay **about that moment in your life you identified in Question No. 2 (description about one of your life event) above.**

Sad :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Happy

Bad :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Good

Gloomy :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Cheerful

Active :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Tranquil

Pleasant :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Unpleasant

Quiet :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Aroused

Still :__1__:__2__:__3__:__4__:__5__:__6__:__7__: Stimulated

This is the final part of the study.

1. Age: _____ years old

2. What is your gender?

1) Male

2) Female

3) Other (prefer not to say)

3. What is your race?
1) Caucasian (or White)
2) African American (or Black)
3) Hispanic American (or Latinos)
4) Asian American (or Pacific Islanders)
5) Native American (or American Indians)
6) African
7) Hispanics
8) Asian
9) Other (prefer not to say)

4. Years of using Internet: _____ years

5. Hours of using Internet in a typical day (including online and mobile):

_____ hours and _____minutes

6. Native language:

1) English;

2) Non-English

Thank you so much for completing this study!

APPENDIX D. CODING SHEET

Coding Sheet

This coding book is to help and train the coders to understand to purpose of coding, the conceptualization of the key concept, and the detailed coding instruction.

Purpose: To obtain participants' temporal information processing style (relational vs. item-specific) by analyzing their cognitive responses (in our case, the evaluations of the ad and the evaluations of the product in the ad).

Key concept:

Conceptualization of two types of information processing style (Malaviya et al., 1996)

Elaboration that pertains to information that an object is specifically depicted as possessing is referred to as item-specific processing (Einstein et al. 1990; Hunt and Einstein 1981; Meyers-Levy 1991).

Elaboration that fosters the processing of information associated with the categories to which an object might belong is referred to as relational processing (Einstein et al. 1990; Hunt and Einstein 1981; Meyers-Levy 1991).

Coding rules:

After we determine the conceptualization of relational vs. item-specific processing style, we can design our coding rules.

According to this conceptual definition, to be coded as reflecting relational processing, responses have to focus on comparison, categorization and product category thoughts, and advertising category thoughts. If the response extends the certain function to actual using scenario in life or clearly mention that the certain function meets his/her need, it can also be counted as relational processing.

Accordingly, these statements below will be coded as reflecting relational processes (examples are from Sar et al., 2010):

- "This computer is <u>better than</u> the other three laptops,"
- "It is <u>newer</u> model laptop,"
- "It has a hug memory that <u>can be used to store movies and pictures</u>,"
- "This newer model of laptop seems to be <u>better than</u> other brands,"

- "It has Quad-Core processing allows multitasking: watching video and TV at the same time"

In contrast, to be coded as reflecting item-specific processing, responses had to focus on product attribute (price, quality, function, etc.) , or the ad attribute (design, layout, quality, color, etc.) and simple.

Consequently, these statements below will be coded as reflecting item-specific processes:

- "Large space for memory, normal battery life,"
- "I thought it was a nice computer" and "it is good computer,"
- "A Quad-Core and hybrid TV tuner with remote control are awesome"

Therefore, one response can contain one or more than one unit and we need to categorize each unit into item-specific processing (coded as "1"), relational processing (coded as "2"), or undecided (coded as "3"). The criterion for separating the units is that whether they are essentially different in meanings.

Rule of thumb:

The item-specific thoughts are usually simple and short, and it either talks about certain function or attributes of the product/ad or expressed their overall positive/negative impression on the product/ad.

APPENDIX E. IRB APPROVAL

Approval from the Institutional Review Board

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Office of the Vice Chancellor for Research
Office for the Protection of Research Subjects
805 West Pennsylvania Ave
Urbana, IL 61801

November 6, 2017

Sela Sar
Advertising
121B Gregory Hall
810 South Wright Street
Urbana, IL 61801

RE: *Effect of mood and culture on consumers' attitude toward incongruity between ad appeal and product type and their purchasing intention*
IRB Protocol Number: 17565

Dear Dr. Sar:

Thank you very much for forwarding the modifications to the University of Illinois at Urbana-Champaign Institutional Review Board (IRB) office for your project entitled *Effect of mood and culture on consumers' attitude toward incongruity between ad appeal and product type and their purchasing intention.* I will officially note for the record that these minor modifications to the original project, as noted in your correspondence received 10/27/2017, Adding a second phase to the study that: changes the product advertised, adds several measures, and adds recruitment from MTurk, have been approved. The expiration date for this protocol, IRB number 17565, is 03/06/2020. The risk designation applied to your project is *no more than minimal risk.*

As your modifications involved changes to consent form(s), I am attaching the revised form(s) with date-stamp approval. Please note that copies of date-stamped consent forms must be used in obtaining informed consent. If modification of the consent form(s) is needed, please submit the revised consent form(s) for IRB review and approval. Upon approval, a date-stamped copy will be returned to you for your use.

Please note that additional modifications to your project need to be submitted to the IRB for review and approval before the modifications are initiated. To submit modifications to your protocol, please complete the IRB Research Amendment Form (see https://www.oprs.research.illinois.edu/forms-templates/forms/protocol-amendment-form). Unless modifications are made to this project, no further submittals are required to the IRB.

You were granted a three-year approval. If there are any changes to the protocol that result in your study becoming ineligible for the extended approval period, the RPI is responsible for immediately notifying the IRB via an amendment. The protocol will be issued a modified expiration date accordingly.

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We appreciate your conscientious adherence to the requirements of human subjects research. If you have any questions about the IRB process, or if you need assistance at any time, please feel free to contact me at the OPRS office, or visit our website at https://www.oprs.research.illinois.edu.

Sincerely,

Michelle Lore, MS
Human Subjects Research Specialist, Office for the Protection of Research Subjects

Attachment(s): 2 Consent Forms